Sept. 18, 1956 I. H. HELANDER 2,763,412

BOAT CARRIER

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Fig. 2

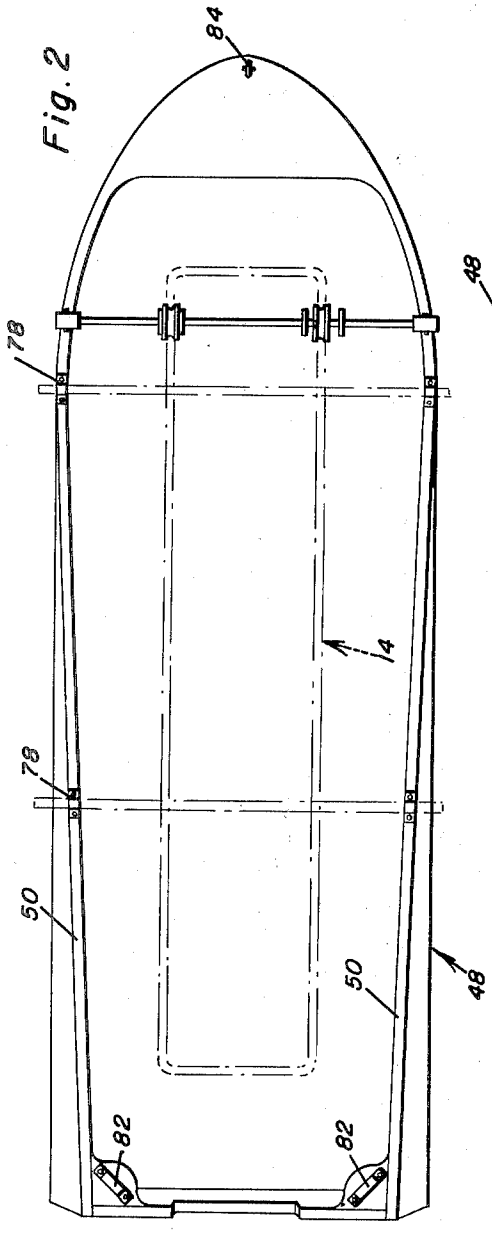
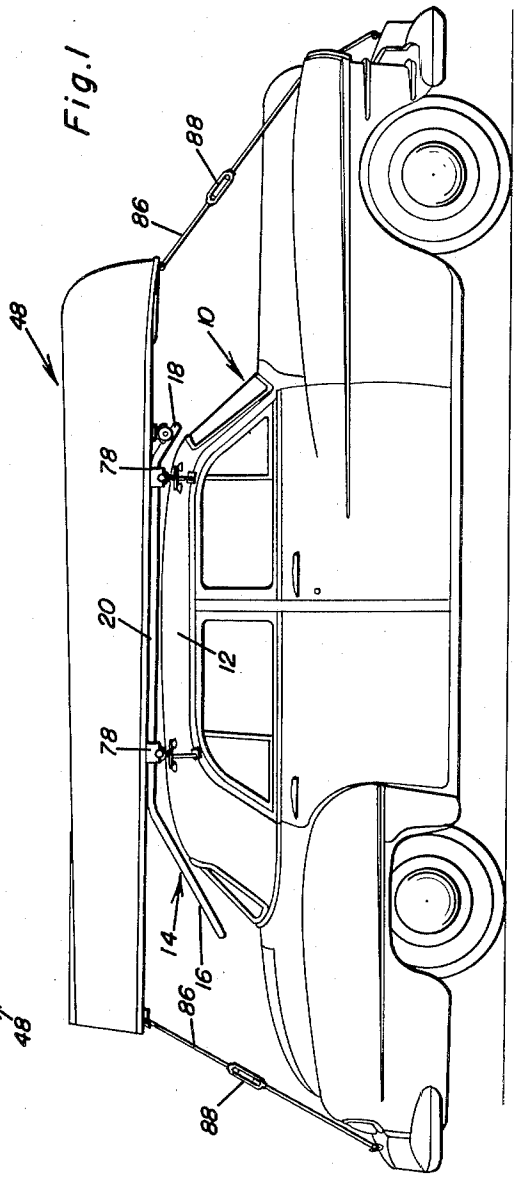


Fig. 1



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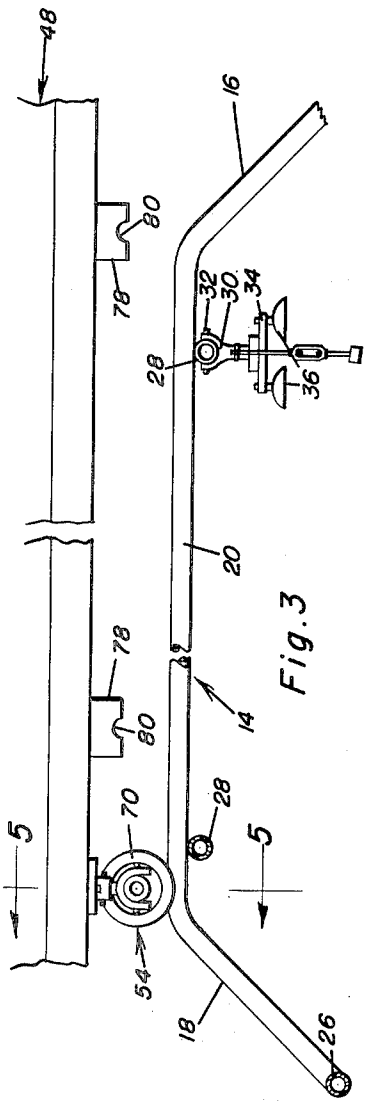


Fig. 3

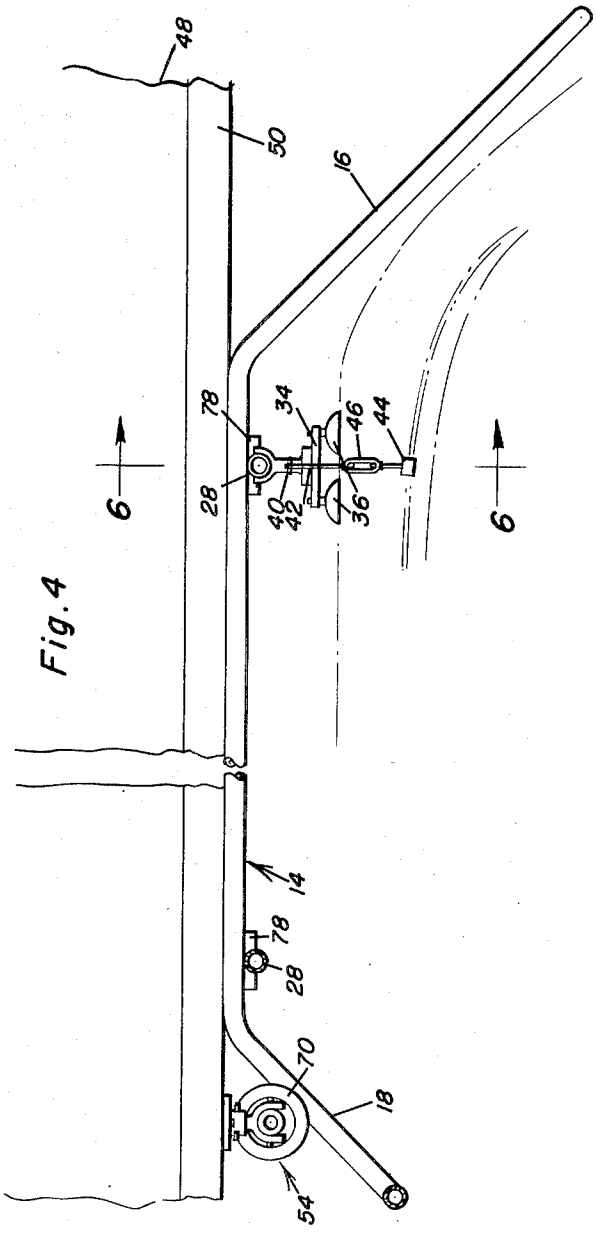


Fig. 4

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BOAT CARRIER

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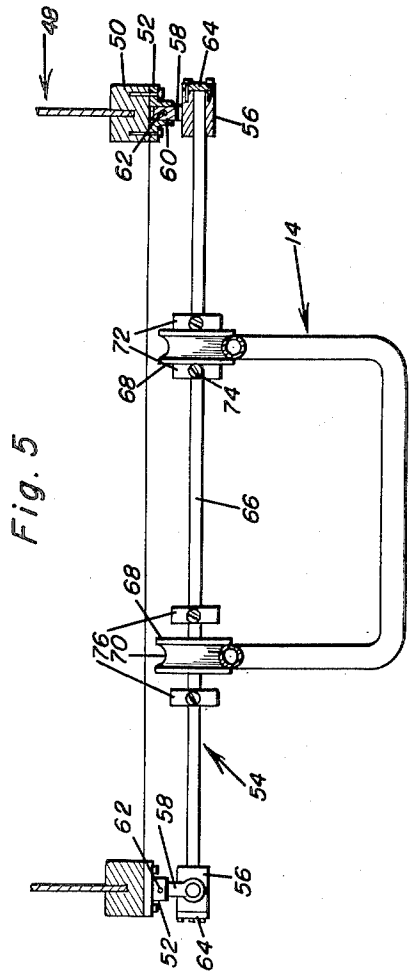


Fig. 5

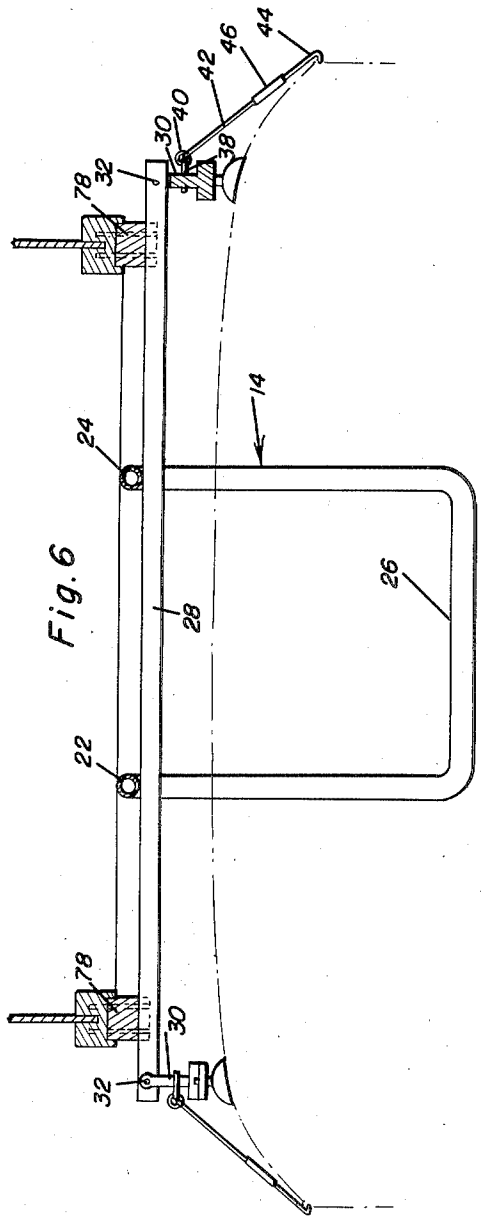


Fig. 6

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2,763,412

BOAT CARRIER

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Application August 20, 1953, Serial No. 375,338

6 Claims. (Cl. 224—42.1)

This invention relates generally to carrying attachments for vehicles and pertains more particularly to an improved form of boat carrier therefor.

A primary object of this invention is to provide an improved form of boat carrier for vehicles which will substantially facilitate the loading and unloading of a boat and will also permit the boat to be firmly secured to the vehicle in a manner to prevent shifting of the boat relative thereto.

Still another object of this invention is to provide an improved form of boat carrier for vehicles which incorporates a track assembly adapted to be secured to the top of a vehicle and cooperable with elements secured to the gunwales of an associated boat whereby the boat will be interlockingly engaged with the track assembly in one position thereon.

A further object of this invention is to provide an improved form of boat carrier for vehicles which incorporates a generally rectangular track assembly having downwardly sloping forward and rear ends to facilitate the loading of a boat thereon and to position the boat correctly with respect thereto such that latching members associated with the boat will firmly engage interlockingly with the track assembly in one position thereon.

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 a side elevational view of a boat in loaded position on an associated vehicle;

Figure 2 is an enlarged top plan view of a boat provided with component parts of the carrier assembly, the trackway being indicated in phantom line;

Figure 3 is a longitudinal section partially broken away showing the carrier assembly in loading position;

Figure 4 is a view similar to Figure 3 but showing the assembly in loaded position;

Figure 5 is a vertical section taken substantially along the plane of section line 5—5 of Figure 3; and

Figure 6 is a vertical section taken substantially along the plane of section line 6—6 in Figure 4.

Referring now more particularly to Figure 1, reference numeral 10 indicates an automotive vehicle generally which includes the top section 12 to which the track assembly indicated generally by the reference character 14 is securely attached. It will be noted that the track is provided with a downwardly inclined rear end section 16 and a downwardly inclined front section 18 and an intermediate horizontal portion 20, this track being generally of elongated rectangular configuration as shown most clearly in phantom lines in Figure 2.

The track proper consists of a pair of parallel side frame members 22 and 24 and the cross connections 26 at the ends thereof, the track being preferably formed of a continuous piece of tubular material bent to the

desired shape and secured together at its abutting ends to form a trackway shown.

A pair of longitudinally spaced transverse mounting members 28 are secured to the undersurface of the horizontal portion of the trackway and these members extend beyond the opposite sides thereof and are provided at their free ends with the yoke members 30 which are pivotally secured thereto as by the pin members 32. The lower ends of the yoke members 30 carry the strap members 34 rigidly secured to the depending suction cup members 36 which are adapted to engage and grip the associated vehicle top. Additionally, each of the yoke members is provided with a rigid pin 38 terminating in an eye 40 to which one end of an attaching cable 42 is secured, the opposite end of the cable terminating in a hook 44 for engaging over the drip moulding of the vehicle and it will be manifest that a suitable turnbuckle 46 may be associated with the cable for completing the rigid attachment of the track assembly to the vehicle top.

A boat to be loaded on the vehicle is indicated generally by the reference character 48 and is of any conventional construction including the gunwales 50 thereof. To outfit the boat for carriage by the trackway, a pair of socket members 52 are rigidly secured by their bases to the gunwales 50 at opposite sides of the boat adjacent the forward end thereof and it will be noted that the axle assembly indicated generally by the reference character 54 includes the bearing members 56 having the yoke members 58 pivotally secured thereto, which yoke members include the projection 60 received within the socket members 52 and which may be rigidly secured thereto as by the pin 62. Cover plate 64 may be provided on the bearing members 56 to prevent longitudinal displacement of the axle member 66 with respect thereto.

The axle 66 carries a pair of wheel members 68 which are provided with circumferential grooves 70 for receiving the track. One of the wheel members 68 is positioned longitudinally on the axle by means of a pair of spacer blocks 72 secured to the axle by means of the set screws 74, the spacer blocks being disposed closely adjacent the opposite sides of the wheels. The other of the wheels also has a pair of spacer blocks 76 associated therewith but which are disposed in spaced relation to opposite sides of the associated wheel such as to permit a slight longitudinal adjustment thereof with respect to the axle 66 such that proper alignment between the side members of the trackway and the wheels may be accomplished.

Latching blocks 78 are provided in opposed pairs in longitudinally spaced relation along the gunwales 50 of the boat and it will be noted that these blocks are provided with the arcuate transverse grooves 80 in their lower surfaces, the purpose of this construction being presently apparent.

Referring now more particularly to Figure 3, it will be noted that the rearward inclined end portion 16 of the trackway provides a convenient ramp for initiating the loading of the boat on the vehicle. After the axle assembly 54 has been secured to the gunwales of the boat in the manner previously described, the boat is pushed forwardly along the trackway until the assembly attains the position shown in Figure 4 wherein the wheels 70 are disposed upon the downwardly inclined forward end portion 18 of the track assembly 14 whereupon the latching blocks 78 will interlockingly engage with the cross members 28 in the manner shown. In this respect, it will be noted that the angular disposition of the forward inclined portion 18 of the trackway taken in conjunction with the spacing between the wheel members 70, the spacer block 78 and the positioning of the members

28 is such that the spacer block 78 will properly engage with the cross members 28 as the boat drops with respect to the vehicle due to the wheels rolling down the inclined portion 18.

To complete the securement of the boat to the vehicle, the former is provided with a series of strap members 82 at its rearward corner and an eye member 84 at its bow, each of these members being associated with suitable ropes or cables 86 and associated turnbuckle 88 for attachment to a suitable point on the vehicle such as the bumpers or the like. In this manner it will be readily appreciated that the interlocking engagement between the various component parts of the carrier will be thus maintained even over the roughest of surfaces which the vehicle may pass.

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 loading and unloading attachment for vehicles comprising, in combination, a track assembly for securement to a vehicle top, a carrier assembly for securement to the gunwales of an inverted boat, said carrier assembly including wheels engaged on said track assembly, said track assembly having a downwardly inclined end portion, and blocks on the gunwales of the associated boat interlockingly engaging said track assembly in response to movement of the said wheels onto the downwardly inclined end portion of said track assembly.

2. A boat carrying assembly comprising an elongated rectangular track adapted to be secured to a vehicle top, said track having spaced parallel side members adapted to be placed longitudinally of an associated vehicle, an axle member having a pair of wheels thereon engageable with the said track side members, said axle member being adapted to be secured to the gunwales of a boat, said track having a downwardly inclined end portion, and blocks adapted to be secured to the gunwales of a boat interlockingly engageable with said track when said wheels are disposed on said downwardly inclined track portion.

3. A boat carrier comprising an elongated rectangular track, rod members extending between and secured to opposite side members of said track, means carried by said rod members for securing the track to a vehicle top, an axle assembly including a pair of spaced wheels engageable on said opposite side members for movement therealong and adapted for attachment to the gunwales

of a boat, said track having a downwardly inclined end portion, and blocks adapted to be secured to the gunwales of a boat and interlockingly engageable with said rod member when said wheels are disposed on said downwardly inclined end portion of the track.

4. A loading and unloading attachment for vehicles comprising, in combination, a track assembly for securement to a vehicle top, a carrier assembly for securement to the gunwales of an inverted boat, said carrier assembly including wheels engaged on said track assembly, said track assembly having a downwardly inclined end portion, and blocks on the gunwales of the associated boat interlockingly engaging said track assembly in response to movement of the said wheels onto the downwardly inclined end portion of said track assembly, said track assembly having its opposite end downwardly inclined to present a ramp to facilitate positioning a boat thereon.

5. A boat carrying assembly comprising an elongated rectangular track adapted to be secured to a vehicle top, said track having spaced parallel side members adapted to be placed longitudinally of an associated vehicle, an axle member having a pair of wheels thereon engageable with the said track side members, said axle member being adapted to be secured to the gunwales of a boat, said track having a downwardly inclined end portion, and blocks adapted to be secured to the gunwales of a boat interlockingly engageable with said track when said wheels are disposed on said downwardly inclined track portion, said track having its opposite end downwardly inclined to present a ramp to facilitate positioning a boat thereon.

6. A boat carrier comprising an elongated rectangular track, rod members extending between and secured to opposite side members of said track, means carried by said rod members for securing the track to a vehicle top, an axle assembly including a pair of spaced wheels engageable on said frame side members for movement therealong and adapted for attachment to the gunwales of a boat, said track having a downwardly inclined end portion, and blocks adapted to be secured to the gunwales of a boat and interlockingly engageable with said rod member when said wheels are disposed on said downwardly inclined end portion of the track, said track having its opposite end downwardly inclined to present a ramp to facilitate positioning a boat thereon.

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