March 24, 1953 W. W. KING ET AL 2,632,655

WHEELED ATTACHMENT FOR TRANSPORTING BOATS

Filed April 24, 1950 2 SHEETS—SHEET 1

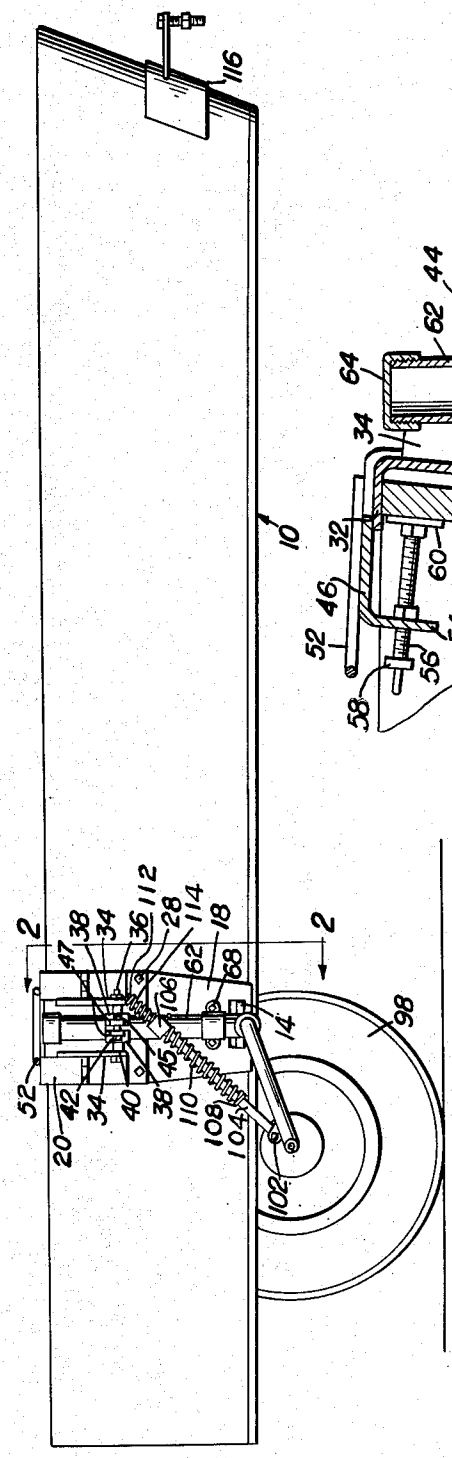


Fig. 1

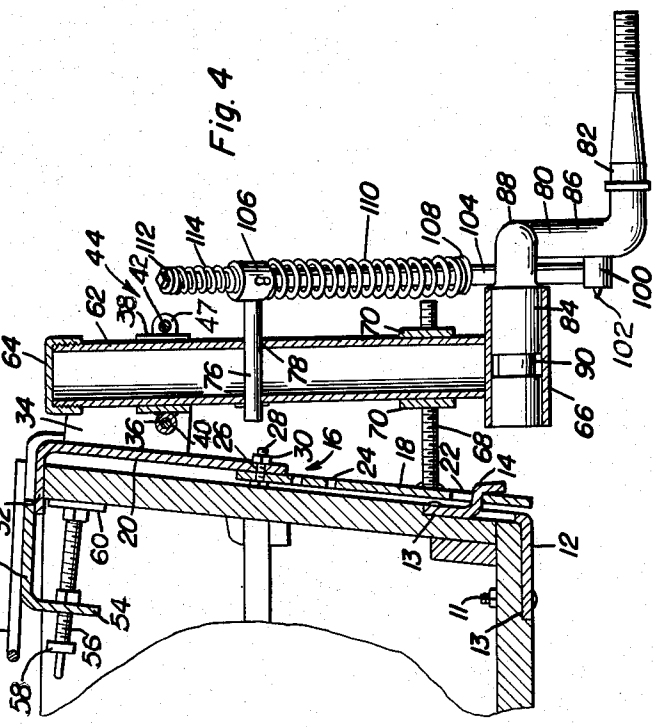


Fig. 4

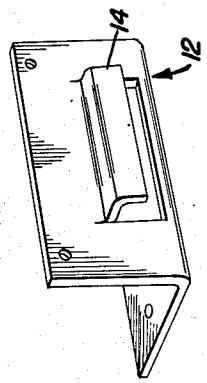


Fig. 6

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WHEELED ATTACHMENT FOR TRANSPORTING BOATS

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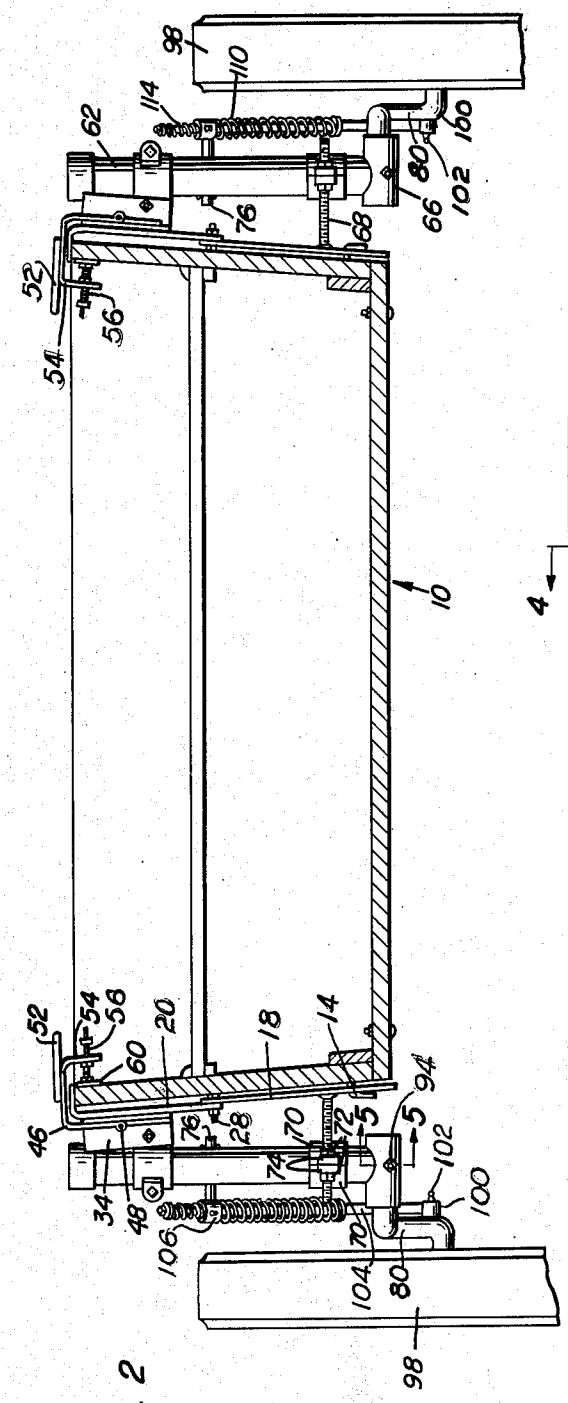


Fig. 2

Fig. 3

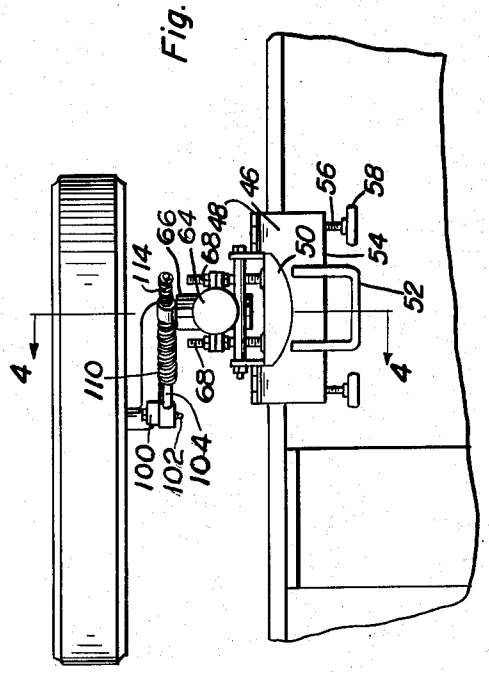
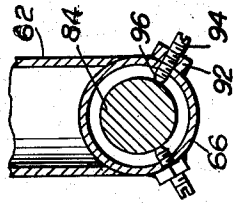


Fig. 5



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Patented Mar. 24, 1953 2,632,655

UNITED STATES PATENT OFFICE

2,632,655

WHEELED ATTACHMENT FOR TRANSPORTING BOATS

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Application April 24, 1950, Serial No. 157,790

4 Claims. (Cl. 280—61)

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The present invention relates to improvements in boat carrying devices and more particularly to the type of carrier adapted to be attached to the side of a boat for providing wheel supports.

This invention has for its object to provide such means that are convenient in use, easily attached to a boat and disconnected therefrom, economical of manufacture, relatively simple, and of general superiority and serviceability.

Another object of this invention is to provide a boat carrier which is compact and does not require an entire trailer frame upon which the boat is to be carried.

A further object of this invention is to provide a resilient means for mounting the boat which is adapted to absorb the impact of the wheels caused by bumps in the road.

The invention also comprises novel details of construction and novel combinations and arrangements of parts, which will more fully appear in the course of the following description. Moreover, the drawings merely show and the following description merely describes embodiments of the present invention, which are given by way of illustration or example only.

The best manner in which I have contemplated applying my invention is illustrated in the accompanying drawings, in which:

Figure 1 is a side elevational view of a boat carrier positioned on the boat;

Figure 2 is a vertical transverse sectional view of the boat with the boat carrying devices attached to the sides of the boat and taken along the line 2—2 of Figure 1.

Figure 3 is a horizontal plan view showing the carrier device in mounted position;

Figure 4 is a vertical transverse sectional view of the carrier mounted on the boat taken on the line 4—4 in Figure 3;

Figure 5 is a vertical transverse sectional view taken substantially along line 5—5 of Figure 2; and

Figure 6 is a perspective view of the angle plate which is permanently attached to the boat.

Referring more particularly to the drawings, wherein like numerals designate like parts, numeral 10 designates generally the boat. Numeral 12 designates the bracket which is permanently attached to the boat by means of bolts 11 and received in recessed portions 13 at the bottom edge of the boat, as shown best in Figures 4 and 6. The bracket 12 has a bent offset portion 14 which provides a hooking means for engagement with a frame, to be hereinafter described.

The frame designated generally at 16 consists of a pair of plates, a lower plate 18 and an upper plate 20. The lower plate 18 has a cut-out portion 22 which receives the offset portion 14 of the bracket 12 when it is positioned on the boat. The upper end of the plate 18 is provided with a plurality of apertures 24. The upper plate 20 is provided with apertures 26 at its lower end and is secured to the lower plate by means of bolts

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28 and nuts 30 in various positions relative to the lower plate, depending upon the size of the boat to which the device is attached. The upper end of the plate 20 is bent over at 32 for engaging the upper edge of the boat when the frame is in position. A pair of plates 34 are fixedly secured to the upper plate 20 by weld and have a pin 36 pivotally mounted therein. A pair of clamp members 38 are mounted on the pin 36 by means of tubular sleeves 40. The mounting means designated generally at 44 are pivotally mounted in the clamps 38 by means of bolts 42 and nuts 45 which urge the flanges 47 together.

As best shown in Figures 2 and 3, a U-shaped member 46 is pivotally mounted on the plates 34 by means of a pin 48. The U-shaped member 46 has a cut-out portion 50 whereby, when the U-shaped member is pivoted from disengagement with the boat, the device will not interfere with the pivoting movement. The member 46 is provided with a U-shaped handle member 52 which is secured to the U-shaped member by weld, for moving the hinge member 46 into and out of engaging positions. The portion 54 of the member 46 is provided with a pair of threaded bolts 56 having handles 58 at one end and enlarged heads 60 mounted for universal movement at its other end for engagement with the inner side of the boat.

The mounting means consists of a tubular member 62 which may be made out of a pipe, closed at its upper end by means of a cap 64, and having mounted on its lower end a tubular bearing member 66. The tubular member 62 is mounted in the clamped brackets 38 for pivoting movement with respect to the plates 34 and is secured from vertical movement by these clamps. The lower plate 18 is provided with a pair of bolts 68 which are rigidly secured thereto and which have a pair of split clamp members 70 for engaging opposite sides of the tubular member 62. The clamps 70 are slidably received on the bolts 68 whereby the tubular member 62 may be angularly adjusted. When it is desired to fix the tubular member 62 in position, the nuts 72 on the bolts 68 are tightened to engage opposite sides of the flanges 74 of the clamp members 70. The tubular member 62 is provided with a transversely extending bore 78 for a purpose hereinafter described.

The axle 80 consists of a wheel receiving portion 82, a portion 86 at right angles thereto, a second portion 88 at right angles to portions 82 and 86, and a third portion 84 in offset but parallel relation to the wheel supporting portion 82. The axle bearing portion 84 is rotatably received in the bearing 66 and has a groove 90 therein. The bearing 66 has a pair of bosses 92 fixed thereon and threadably receives therethrough a pair of set screws 94 which have their ends 96 extending into the groove 90 for retaining the axle from axial movement. A conventional wheel 98 is secured on the wheel re-

ceiving portion 82 and secured thereon by other conventional means.

An element 100 is secured to the portion 86 of the axle and has a pin 102 mounted thereon. A shaft 104 is mounted for pivoting movement on the pin 102. An intermediate portion of the shaft 104 is loosely received in a sleeve 106 rigidly secured to a pin 76 which is rotatably received in the transverse bore 78. The shaft 104 is provided with an annular shoulder 108 for engagement by a spring 110. The upper end of the spring 110 engages the lower edge of the sleeve 106, urging the shaft 104 downwardly, and thus also urging the axle portion 82 downwardly. The upper end of the shaft 104 is provided with a spring retainer 112 and a spring 114 between the spring retainer 112 and the sleeve 106.

The boat 10 is provided at its bow with a bracket 116 of any conventional type whereby the boat may be towed.

From the foregoing description of the construction of the boat carrier device, it will readily be seen that when it is desired to attach the device to a boat, the plates 18 and 20 are secured to each other in a predetermined relation and are placed in juxtaposition to the boat with the offset portion 14 received in the recess 22 and the bent end portion 32 overlying the boat. The hinged portion 46 is then pivoted over the side of the boat and the clamps 60 are urged against the inner side of the boat for securing the plates to the side of the boat. The mounting means is then fixed in adjusted position whereby the axle portion 82 lies in a horizontal plane. With one of these devices clamped on each side of the boat, the boat may then be connected to an automobile by means of the bracket connection 116.

From the foregoing description of my invention, it will readily be seen by one skilled in the art that I have provided a novel construction and arrangement of parts which may readily be manufactured from standard stock and easily assembled to provide a compact boat carrier device.

Having described the invention, what is claimed as new is:

1. A boat carrier device comprising a frame having means for attaching the frame to the boat, mounting means adjustably secured to the frame, axle means of crank form having a first portion journaled in the mounting means and having a second portion adapted to receive a wheel thereon, and resilient means between said mounting means and said second portion of said axle means for absorbing road shock, said mounting means comprising a tubular member having a transversely extending bearing mounted at its lower end for receiving the axle, a pair of bolts rigidly mounted on said frame, a pair of semi-cylindrical clamp members mounted on said bolts for clamping engagement with said tubular member, means for securing said clamping members in selected position, and the upper end of said tubular member being pivotally mounted on said frame, said resilient means being pivotally connected to said second portion of said axle and being further connected to said tubular member.

2. A boat carrier device comprising a frame having means for attaching the frame to the boat, mounting means adjustably secured to the frame, axle means of crank form having a first portion journaled in the mounting means and having a second portion adapted to receive a wheel thereon, resilient means between said mounting means and said second portion of said axle means for absorbing road shock, said mounting means including a tubular member having a transversely extending bearing mounted at its lower end for receiving the axle, a pin rotatably mounted in said tubular member, a sleeve fixed to the outer end of the pin, said resilient means consisting of a shaft loosely received in said sleeve at an intermediate point and pivotally mounted on the second portion of said axle at one end, a spring retainer on the free end of said shaft, a pair of springs on said shaft engaging said sleeve at opposite sides thereof and adapted to urge said axle to one position.

3. A boat carrier device comprising a frame having means for attaching the frame to a boat, mounting means adjustably carried by said frame, said mounting means comprising a tubular member having a transversely extending bearing mounted at its lower end for receiving an axle, a pair of bolts rigidly mounted on said frame, a pair of semi-cylindrical clamp members mounted on said bolts for clamping engagement with an intermediate portion of said tubular member, the upper end of said tubular member being pivotably carried by said frame, and means for securing said clamping members in selected position whereby said tubular member can be disposed in preselected relation to said frame.

4. A boat carrier device comprising a frame having means for attaching the frame to a boat, mounting means adjustably carried by said frame, said mounting means comprising a tubular member having a transversely extending bearing mounted at its lower end for receiving an axle, a pair of bolts rigidly mounted on said frame, a pair of semi-cylindrical clamp members mounted on said bolts for clamping engagement with an intermediate portion of said tubular member, the upper end of said tubular member being pivotably carried by said frame, and means for securing said clamping members in selected position whereby said tubular member can be disposed in preselected relation to said frame, axle means of crank form having a first portion journaled in said bearing and having a second portion adapted to receive a wheel thereon.

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