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BOAT LOADING ATTACHMENT FOR AUTOMOBILES

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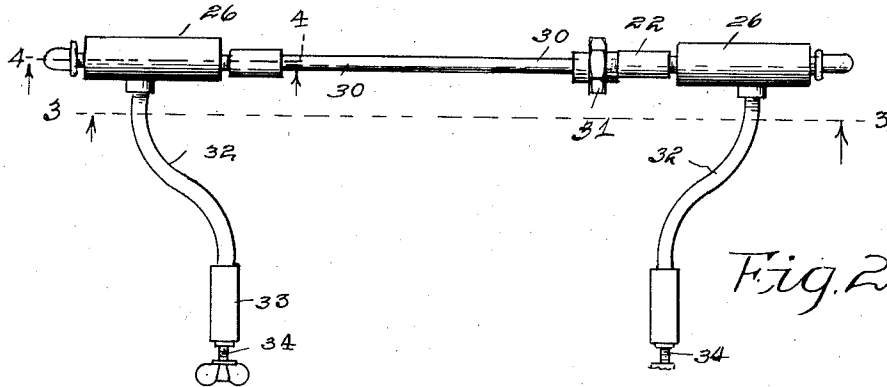


Fig. 2.

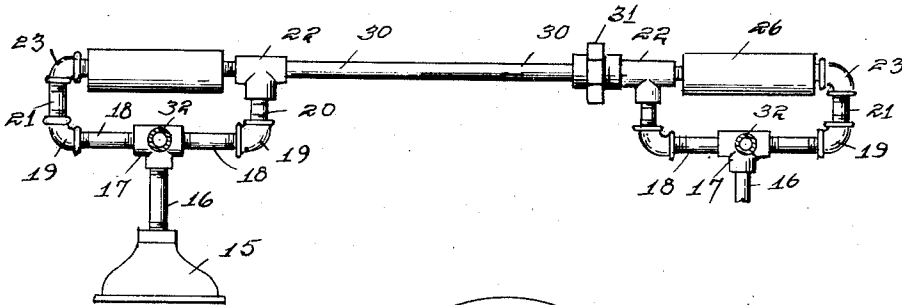


Fig. 3.

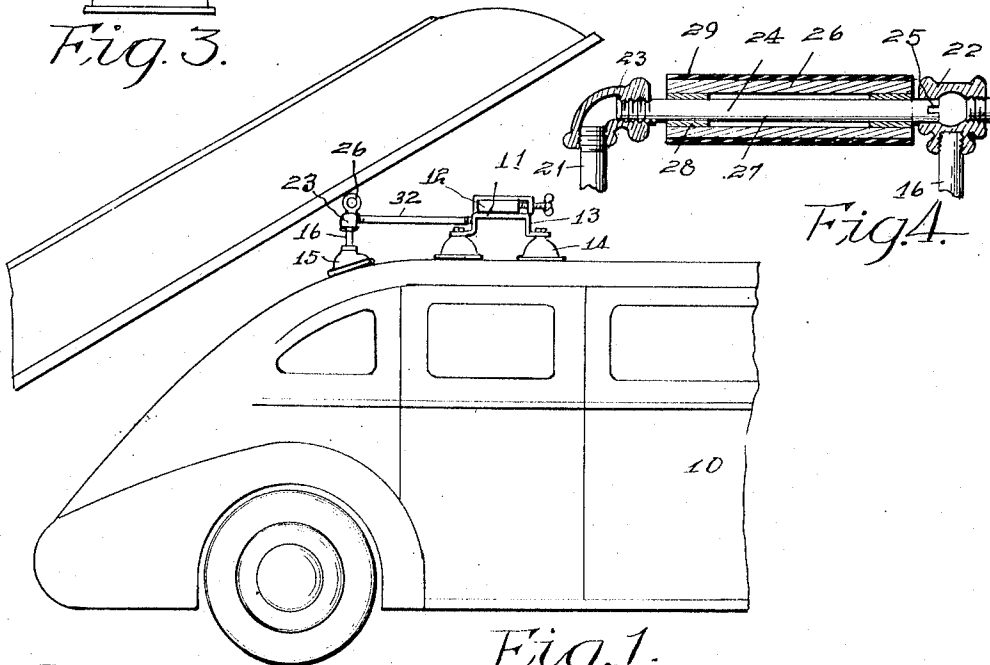


Fig. 4.

Fig. 1.

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BOAT LOADING ATTACHMENT FOR
AUTOMOBILES

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1 Claim. (Cl. 224—29)

The object of my invention is to provide improved means to assist in the loading of boats to position to be carried on top of an automobile and especially adapted to be used in connection with top carriers of ordinary construction used to support a boat thereon after it has been loaded, and wherein the loading may be accomplished by a single person.

More specifically, it is the object of my invention to provide a device for the purpose above described, employing anti-friction rollers and means for supporting said rollers, including vacuum cups, and means for fixing the supporting means to one of the top carrier elements in detachable manner.

A further object is to provide in a boat-loading device, an improved bracket for supporting the anti-friction rollers, and means for easily and quickly attaching the roller to or detaching it from said bracket.

My invention consists in the construction, arrangement and combination of the various parts of the device whereby the objects contemplated are attained, as hereinafter more fully set forth, pointed out in my claim, and illustrated in the accompanying drawing, in which:

Figure 1 is a side elevation of a portion of an automobile showing one of the top carrier elements of ordinary construction mounted thereon, and the means by which my improved loading device is attached thereto, and also showing the manner in which a boat may be loaded on the carrier elements;

Figure 2 is a plan view of my improved loading device;

Figure 3 is a detail sectional view taken on the line 3—3 of Figure 2; and

Figure 4 is an enlarged detail sectional view taken on the line 4—4 of Figure 2.

In the drawing I have used the numeral 10 to indicate a portion of an automobile body on which is mounted a carrier device 11 of ordinary construction, employing a cross bar 12, a bracket 13 for supporting the same, and vacuum cups 14 by means of which the brackets 13 are mounted on the top of the body 10, there being two of these carrier devices, one near each end of the top for supporting the boat in an inverted position when placed thereon.

My improved device comprises a pair of vacuum cups 15 each provided with an upright post 16 having mounted on its upper end a head 17, said head being provided with horizontally arranged pipes 18, each of which is provided with an elbow 19, one of said elbows having an upright nipple

20 and the other one an upright nipple 21. Connected to the upper end of the nipple 20 is a pipe T 22, while the nipple 21 has an elbow 23, all of the above said parts being fixed together in a permanent manner.

Screw threaded into the elbow 23 is one end of a shaft 24, the other end of the shaft being slidably mounted in the T 22, said shaft being placed in position by being passed through said T 22, the inner end of the shaft 24 having a slot 25 for receiving a screw driver by means of which the shaft may be detachably mounted in the elbow 23.

A roller 26 is provided with a longitudinal and central opening 27 having a sleeve 28 in each end and rotatably mounted on the shaft 24. The outer surface of the roller 26 is covered with a layer of rubber or other yieldable material 29.

The inner end of one of the elbows 23 is provided with a rod or pipe 30, said rod 30 being connected to the other elbow in a detachable manner by means of a pipe union 31, thus providing means whereby the two rollers supporting brackets may be disconnected from each other to permit them to be stored in a comparatively small space when not in use.

Projecting laterally from the forward side of each of the members 17 I have provided a curved pipe 32, each pipe having at its free end a clamp device 33 provided with a set screw 34 for securing the clamp to the cross member 12 of the top carrier in the manner clearly illustrated in Figure 1, with the cups 15 resting on the rear end of the top, substantially as illustrated in Figure 1, with the tops of the rollers 26 substantially horizontally even with the top of the member 12, said rollers 33 being supported rearwardly of the rear member 12 some distance, so that a boat may be inverted and placed in an inclined position with the gunnels of the boat resting on the rollers, after which the owner of the boat may grasp the lower end and slide it longitudinally in an upwardly and forwardly plane until the forward end of the boat will overbalance the rear end, permitting the body of the boat to swing to a horizontal position with the gunnels of the boat resting on the cross bars 12. The boat may then be slid forwardly to the proper distance to balance it on the top carrier, after which suitable straps, not illustrated, and carried by the carrier elements, may be utilized to bind the boat in position on said top carrier. By this arrangement it will readily be seen that a single person may easily and quickly load a boat weighing 200 or 250 lbs. very easily and quickly.

The cups 15 are of such shape and flexible enough so that they will yield to permit the cup to fit the rearwardly and downwardly inclined portion of the top without any adjustment of the cup relative to the post 16. The sleeves 28 in the rollers 26 provide means whereby the rollers are free to rotate on the shaft at all times, the rollers 25 being of such length that either a boat having a narrow beam, or one with a comparatively wide beam may be loaded without any adjustment of the roller brackets one towards the other.

Thus, it will be seen I have provided a boat-loading device of simple, durable and inexpensive construction, which may be easily and quickly applied, and when so applied, provide means whereby a boat weighing 200 or 250 lbs. may be loaded on top of an automobile with very little difficulty.

I claim as my invention:

In a device of the class described, a pair of sub-

stantially U-shaped members supported in an upright plane, an upright supporting each of said U-shaped members, a vacuum cup supporting each of said uprights, with each of said U-shaped members having a threaded opening in one leg and a second opening in the other leg thereof, a shaft corresponding to each of said U-shaped members adapted to be passed through a second opening and having a threaded portion for threaded engagement with a threaded opening, a roller rotatably mounted on each of said shafts, a shaft connecting said two U-shaped members in a common plane and with said rollers in alignment, said connecting shaft including a coupling means whereby the two units may be separated, a member extended laterally in the same direction from each of said upright members, and a clamp supported on the outer end of each of said extended members.

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