Dec. 10, 1957 A. L. BENSON 2,815,875

DOLLY FOR HANDLING SMALL BOATS OR THE LIKE

Filed Oct. 21, 1955 2 Sheets-Sheet 1

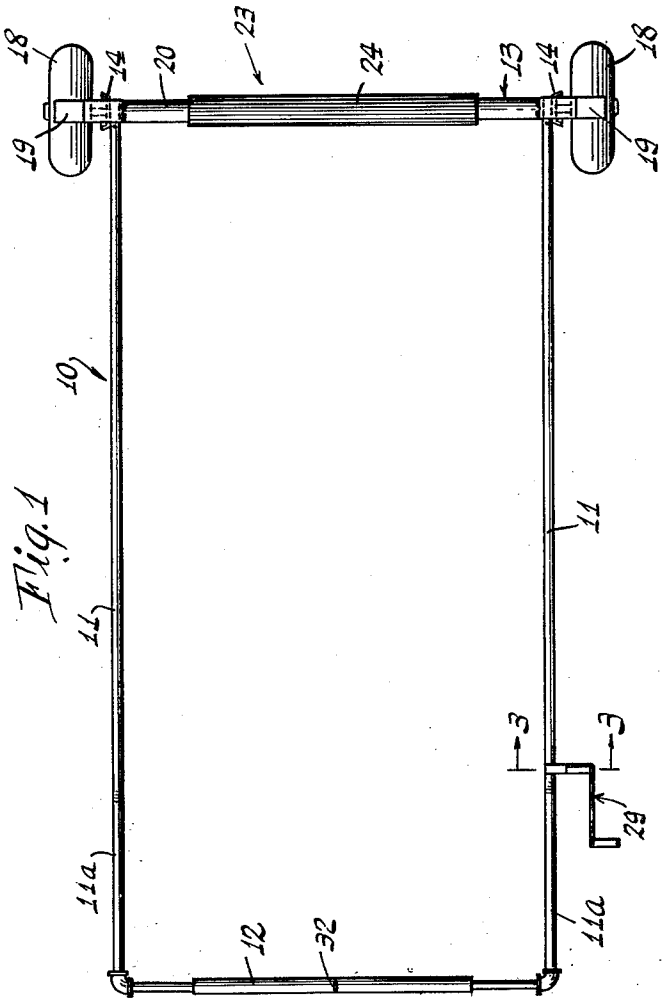


Fig. 1

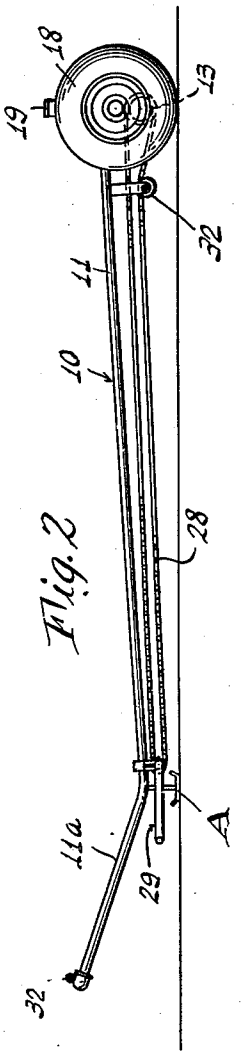


Fig. 2

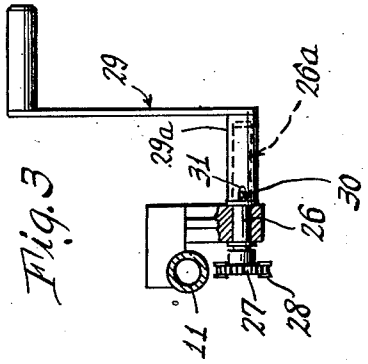


Fig. 3

INVENTOR.
Allan L. Benson
BY
Johnson and Kline
ATTORNEYS

Dec. 10, 1957 A. L. BENSON 2,815,875

DOLLY FOR HANDLING SMALL BOATS OR THE LIKE

Filed Oct. 21, 1955 2 Sheets-Sheet 2

Fig. 5

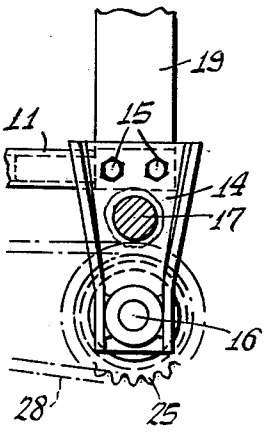


Fig. 4

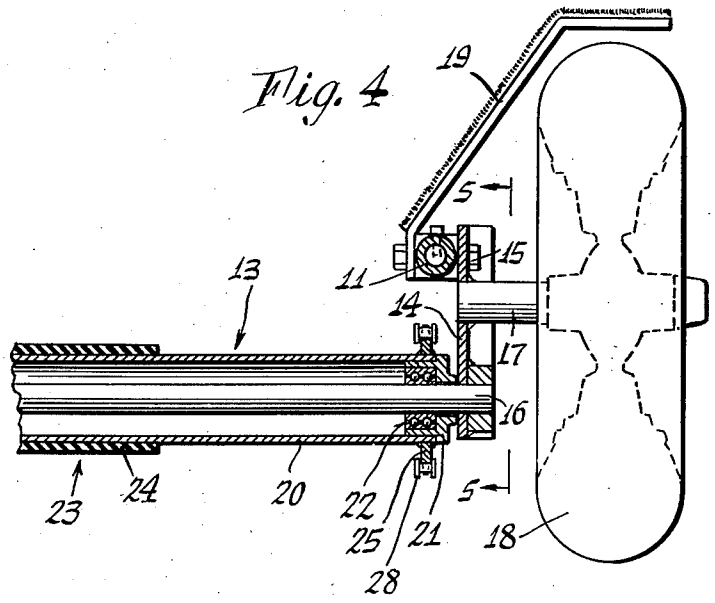


Fig. 6

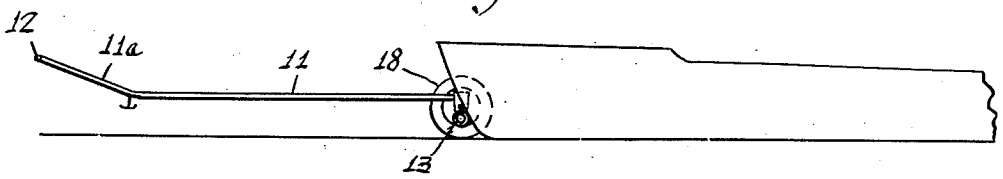


Fig. 7

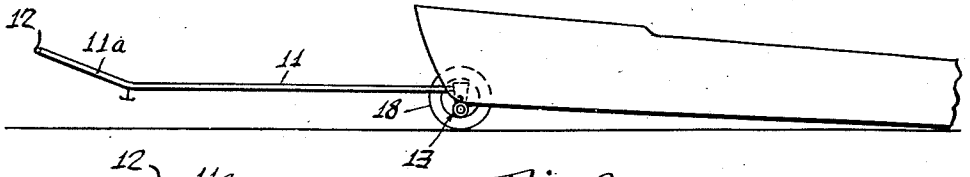
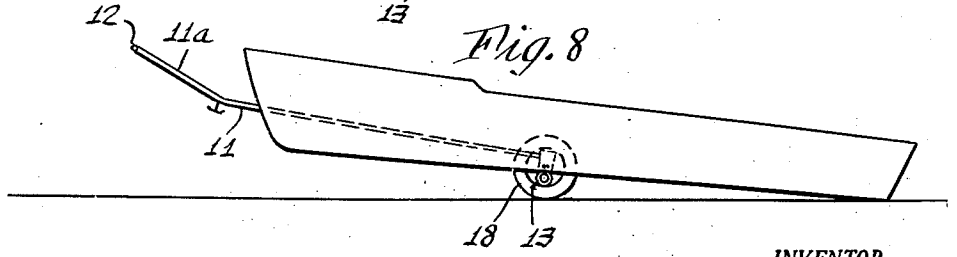


Fig. 8



INVENTOR.
Allan L. Benson
BY
Johnson and Kline
ATTORNEYS

United States Patent Office 2,815,875
Patented Dec. 10, 1957

2,815,875

DOLLY FOR HANDLING SMALL BOATS OR THE LIKE

Allan Louis Benson, Westport, Conn.

Application October 21, 1955, Serial No. 541,889

5 Claims. (Cl. 214—84)

This invention relates to a dolly for handling small boats.

Heretofore, in handling boats, particularly in small boat yards, there has always been a problem of moving small boats for storage and/or repair purposes. It usually has required the services of several men to lift the boat so that a dolly or a skid can be inserted under it or removed and this frequently delayed operations until the several men were available to lift the boat.

The present invention overcomes these difficulties by providing a dolly by which one man can lift the boat and insert the dolly under it or can remove the boat from the dolly with great ease and facility.

This is accomplished, according to the present invention, by providing a dolly having a roller at the rear end thereof which roller is adapted to be driven so that when the dolly is backed up to the boat it will engage the bow of the boat and by its rotation lift the boat and permit the dolly to be slid under the boat to a position in which a balanced point is obtained, whereby the boat is readily supported on the dolly.

A feature of the invention resides in the fact that the device is of simple construction and easy to operate so that one man can readily handle a small boat.

Other features and advantages of the invention will be apparent from the specification and claims when considered in connection with the drawings in which:

Figure 1 shows a top plan view of the dolly.

Fig. 2 is a side view of Fig. 1.

Fig. 3 is a sectional view taken along line 3—3 of Fig. 1.

Fig. 4 is a fragmentary view partially in section showing the roller and bracket construction.

Fig. 5 is a view taken along line 5—5 of Fig. 4.

Fig. 6 is a sectional view of the dolly showing the dolly in position to engage the bow of the boat.

Fig. 7 shows the position after the roller has been rotated to lift the front end of the boat into supporting position on the dolly.

Fig. 8 shows the dolly moving toward substantially balanced position under the boat.

As shown in the drawings the dolly of the present invention comprises a frame **10** having side members **11**. The forward ends **11***a* of the side members are inclined upwardly and connected together and have a handle **12** thereon by which the dolly can be readily manipulated. The rear ends of the side members are secured together and have a lifting roller **13** carried thereby. In the illustrated form of the invention this is accomplished by having depending brackets **14** secured to the side members by bolts **15** or the like fastening means and by connecting the lower ends of the brackets together by a tie rod **16**, thus forming a rigid frame structure. Secured on the bracket intermediate the ends, as by welding or the like, are stub axles **17** upon which are mounted ground-engaging wheels **18**. If desired, a wheel guard **19** can also be carried by the frame to project upwardly and

over the wheel to protect the boat against contact with the wheel should it tip while being moved.

If desired a ground-engaging supporting member A can be provided adjacent the forward end of the frame to normally support the frame in a slightly forwardly inclined position as shown in Fig. 2.

Preferably the tie rod is utilized as the means for mounting cylindrical roller **13**, herein illustrated as being formed by a sleeve **20** having end caps **21** secured therein and in which end caps are ball bearings **22**, whereby the sleeve is freely rotatable on the tie rod **16**. In-between the ends of the sleeve there is provided a friction surface **23**. In the herein illustrated form of the invention the friction surface is formed by a tubular rubber cover **24** closely embracing the sleeve.

With this construction it will be seen that the tie rod not only serves to secure the side members together to form a rigid construction, but it also performs a double function of providing the mounting means for the roller which so locates the roller below the axles of the wheels at the rear of the frame and above the ground to enable it to be readily moved into engaging position to lift the boat as will be explained.

In order to drive the roller, there is mounted at one end thereof a sprocket **25** and on the corresponding side member there is mounted an actuating shaft **26**, as shown in Fig. 3, having a sprocket **27** at one end to receive a driving chain **28**. The actuating shaft has a projecting stub shaft **26***a* at the other end adapted to receive a hand crank **29**. The hand crank has a sleeve **29***a* which can be readily slipped over the stub shaft and is drivingly connected thereto by a pin **30** carried by the shaft entering a slot **31** in the sleeve **29***a*. If desired, a suitable tensioning roller **32** can be carried by the side bar (Fig. 2) to engage the chain and hold it taut. It will be seen therefore that roller **13** can be driven by the hand crank adjacent the handle **12** so that the dolly can be manipulated and the roller can be readily driven from the front end by a single operator.

In using the dolly, it is backed up against the bow of a small boat, as shown in Fig. 6, with the roller **13** in contact with the bow. The hand crank **29** is applied to the stub shaft **26***a* and the roller is driven thereby in a counterclockwise direction. Since the friction surface of the roller is pressed against the bow this will cause the bow of the boat to be lifted by the roller and cause it to move under the boat as shown in Fig. 7. Thereafter, the roller can be turned by the hand crank to move the boat longitudinally onto the dolly at the same time the dolly is pushed rearwardly under the boat, as shown in Fig. 8, or the handle can be removed, the rear end of the boat lifted and rolled over the freely rotating roller until it is moved into a balanced position on the dolly.

If desired, the boat can be lashed to the dolly by suitable ropes, not shown. To facilitate this operation, one or more eye bolts **32** can be carried by the frame and through which the ropes can be readily passed.

By reversing the above operations, one man can easily and safely unload the boat from the dolly and lower it to the ground or put it in the water as required.

From the foregoing it will be seen that the present invention provides a simple and efficient dolly construction whereby one man can load or unload small boats on the dolly and readily manipulate and move the boats as required.

Variations and modifications may be made within the scope of the claims and portions of the improvements may be used without others.

I claim:

1. In a dolly for handling small boats, a frame comprising elongate side members having the forward ends

thereof connected by a handle and means connecting the rear ends of said side members, ground-engaging wheels mounted on the side members adjacent the rear ends thereof, a roller having a friction surface carried by the frame at the rear end thereof and located with its axis of rotation disposed between the axis of rotation of the wheels and the ground, said roller being adapted to engage the bow of a boat when the dolly is backed into contact therewith, and manually controlled means remote from the roller for rotating said roller on its axis whereby the roller lifts the bow of the boat and enables the dolly to move thereunder, said roller permitting the boat to be moved onto the frame and supported thereby.

2. In a dolly for handling small boats, a frame comprising elongate side members having the forward ends thereof connected by a handle, depending brackets secured to the rear ends of said side members, a tie rod connecting the lower ends of said brackets, wheels mounted on the brackets above said tie rod, a roller having a friction surface rotatably mounted on the tie rod, said roller being adapted to engage the bow of a boat when the dolly is backed into contact therewith, and means, including an operator remote from said roller, for rotating said roller whereby the roller lifts the bow of the boat and enables the dolly to move thereunder and support the boat.

3. In a dolly for handling small boats, a frame comprising elongate side members having the forward ends thereof connected by a handle, depending brackets secured to the rear ends of said side members, a tie rod connecting the lower ends of said brackets, wheels mounted on the brackets above said tie rod, a roller having a friction surface rotatably mounted on the tie rod by means of antifriction bearings, said roller being adapted to engage the bow of a boat when the dolly is backed into contact therewith, means including a crank adjacent the handle and drive means connecting the crank to said roller for rotating said roller whereby the roller lifts the bow of the boat and enables the dolly to move thereunder to a point of balance of the boat to support the boat thereon.

4. In a dolly for handling small boats, a frame comprising elongate side members having the forward ends

thereof connected by a handle, a supporting stand secured to the frame adjacent the forward end, depending brackets secured to the rear ends of said side members, a tie rod connecting the lower ends of said brackets, ground-engaging wheels mounted on the brackets above said tie rod, a roller having a friction surface rotatably mounted on the tie rod, said roller being a substantial distance above the ground and adapted to engage the bow of a boat when the dolly is backed into contact therewith, means, including an operator remote from said roller, for rotating said roller whereby the roller lifts the bow of the boat and enables the dolly to move thereunder to a point of balance of the boat to support the boat thereon, and means carried by the frame whereby the boat can be secured thereon.

5. In a dolly for handling small boats, a frame comprising elongate side members having the forward ends thereof connected by a handle, a supporting stand secured to the frame adjacent the forward end, depending brackets secured to the rear ends of said side members, a tie rod connecting the lower ends of said brackets, ground-engaging wheels mounted on the brackets above said tie rod, a roller having a friction surface rotatably mounted on the tie rod by means of antifriction bearings, said roller being adapted to engage the bow of a boat when the dolly is backed into contact therewith, means including a crank adjacent the handle and drive means connecting the crank to said roller for rotating said roller whereby the roller lifts the bow of the boat and enables the dolly to move thereunder to a point of balance of the boat to support the boat thereon, and means carried by the frame whereby the boat can be secured thereon.

References Cited in the file of this patent

UNITED STATES PATENTS

151,253	Tothammer et al.	May 26, 1874
1,452,003	Richardson	Apr. 17, 1923
1,479,612	Joyner	Jan. 1, 1924
2,534,868	Johnston	Dec. 19, 1950
2,650,099	Keaton	Aug. 25, 1953
2,650,730	Rohm	Sept. 1, 1953
2,673,653	Gardner	Mar. 30, 1954