Oct. 9, 1962 V. H. CAMERON 3,057,493

ROLLER SUPPORT ARM BRACKET FOR BOAT TRAILERS

Filed May 26, 1960 2 Sheets-Sheet 1

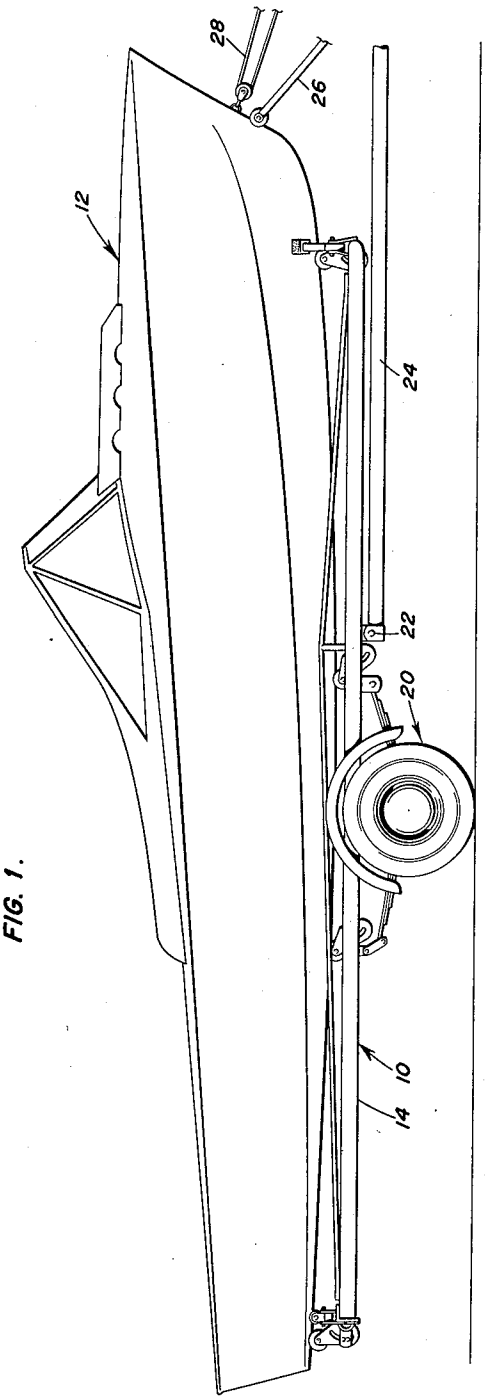

FIG. 1.

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FIG. 2.

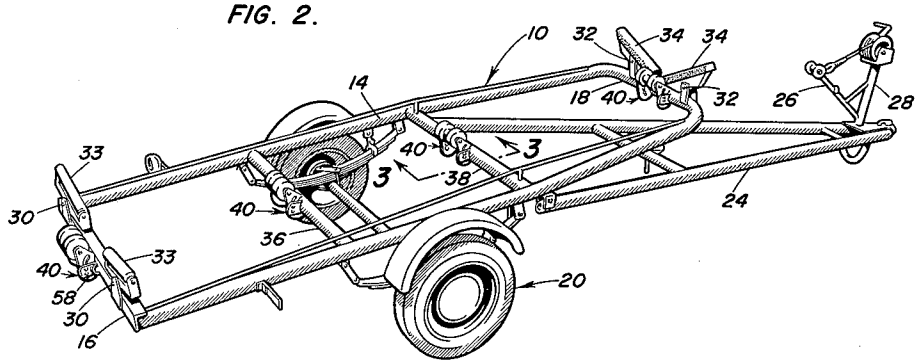
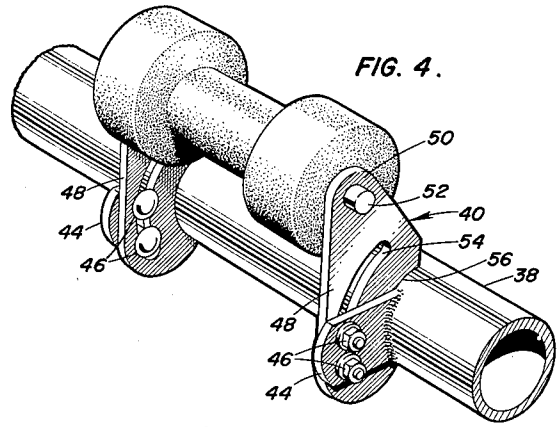


FIG. 4.



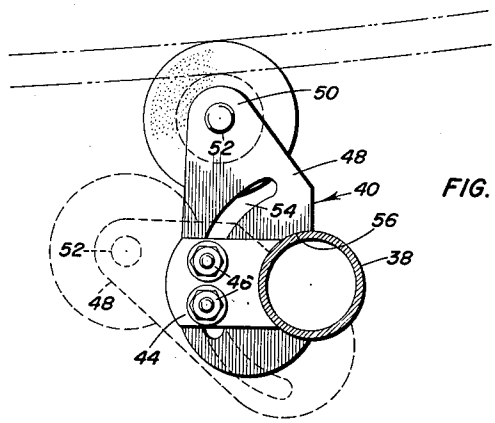


FIG. 3.

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ROLLER SUPPORT ARM BRACKET FOR BOAT TRAILERS

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This invention relates generally to vehicles and more particularly to trailers for carrying relatively small craft such as outboard motor boats or the like.

Although hulls of the craft involved are generally described as "small," they encompass a considerable amount of weight and bulk which is a particular consideration when the problems of launching retrieving and hauling are faced by a single individual. The trend has been to design trailers which are especially adapted to stabilize hulls during transport and yet permit ready launching and retrieving of the same with a minimum of effort and personnel. To this end, as will become apparent, applicant's invention is especially practical.

A primary object of the invention is to provide novel keel engaging means facilitating the hauling, launching and retrieving of a hull with a minimum of effort and personnel.

Another object of the invention is to provide novel adjustable keel engaging roller means whereby a hull may be readily hauled, launched and retrieved.

A further object of the invention is to provide novel adjustable keel engaging roller means which includes a construction providing the optimum load distribution of the weight imposed thereon.

Other objects and advantages of the invention will be apparent from the following description, the accompanying drawings and the appended claims.

In the drawings:

FIGURE 1 is a side elevation of a boat trailer with a small boat mounted thereon and ready for transport and launching;

FIGURE 2 is a perspective view, on a reduced scale, showing the trailer of FIGURE 1 in a position to launch a boat;

FIGURE 3 is an enlarged fragmentray section taken on line 3—3 of FIGURE 2, showing by phantom lines a fragmentary portion of a hull and showing in dotted lines an alternate adjusted position of the novel adjustable keel-roller of the invention; and

FIGURE 4 is an enlarged fragmentary perspective view of the novel keel-roller.

Referring to the drawings in detail, a boat trailer is indicated generally at **10** and will support thereon a boat hull indicated generally at **12**.

The trailer **10** is of a conventional type including a U-shaped frame **14** including a rear transverse element **16** and a forward bight portion **18**. A wheel and axle assembly indicated generally at **20** underlies an intermediate portion of the frame **14**. The frame **14** has intermediately pivoted at **22** a forwardly converging frame **24** including a bow brace **26** and winch **28**.

The element **16** and bight portion **18** have pivotally mounted at **32** and **32**, respectively, on opposite sides of the longitudinal center or keel line of the trailer opposed pairs of cradle rollers **32** and **34**.

The frame **14** includes intermediate transverse braces **36** and **38** and the rear element **16**, bight portion **18** and braces **36**, **38** each include at the keel line or longitudinal

center of the trailer frame vertically adjustable keel engaging bracket assemblies indicated generally at **40**.

The adjustable keel engaging bracket assemblies **40** will readily support different keel curvatures of various hulls when adjusted as will subsequently be described, and these assemblies will facilitate the transport, launching and retrieving of a hull. Since the assemblies are similar, one only will be described in detail; see FIGURES 2 and 3.

The brace member **38** includes a pair of parallel vertically disposed support straps **44**, secured by welding at **42**. The straps **44** include transverse apertures in which suitable nut-and-bolt assemblies **46** are accommodated. A pair of substantially triangular plates **48** are transversely apertured at their apex portions **50** to accommodate ends of the shaft **52** of "dumbbell shaped" support rollers which are preferably solid steel elements having a suitable resilient outer cover for cushioning the boat keel and affording reduced noise during keel launching and retrieving.

The plates **48** include a transverse, generally vertically disposed arcuate slot **54** in which the nut-and-bolt assemblies **46** are received to clamp the same in an adjusted position. The lower surface of the plates **48** include an arcuate lower edge **56** having a radius of curvature similar to that of the outer surface of the member **38** upon which the assembly **40** is mounted. The transverse frame element **16**, it will be noted, has an arcuate portion **58** to accommodate the lower edge of an assembly **40** thereon.

The lower arcuate edge of the plates **48** by having a radius portion conforming to that of the member upon which it is mounted, provides an increased bearing area whereby load is distributed to the support member and relieved from the nut-and-bolt assemblies **46**. Since different hulls have different keel profiles, the assemblies **40**, see FIGURE 3, afford a considerable range of adjustment and thus may be readily and expeditiously adjusted and adapted to support different keel portions.

It will be apparent that there has been disclosed a novel keel engaging bracket assembly which accommodates different keel profiles and which conforms with the objects of the invention as heretofore set forth. Various modifications are contemplated as fall within the scope of the appended claims.

What is claimed is as follows:

1. In a boat trailer, a support member having an arcuate outer surface, a keel support assembly comprising a pair of spaced support straps on said support member, a pair of plates, each of said plates having an arcuate lower edge conforming to the arcuate surface of the support member and an arcuate slot therethrough, means extending through said straps and said arcuate slots whereby said plates are secured in an arcuated path of adjustment on said straps and an anti-friction roller extending between and mounted on said plates for supporting the keel of a boat.

2. The structure of claim 1, said plates having openings therein for supporting said roller, said openings being above the arcuate slot and offset from the lower edge of the plates.

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