April 26, 1949. G. H. BINZ 2,468,390

COLLAPSIBLE MOTOR CARRIER

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Fig. 1.

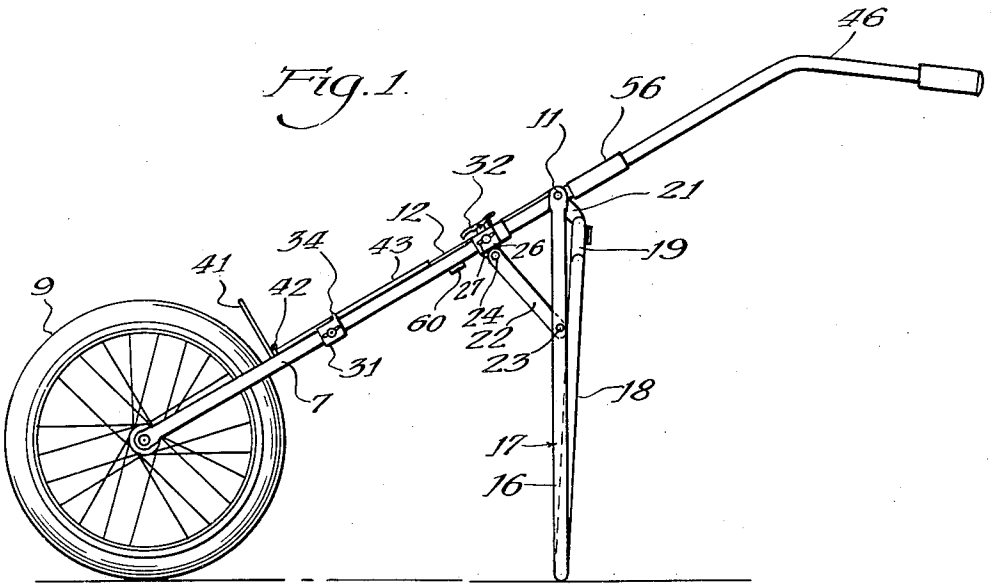


Fig. 3.

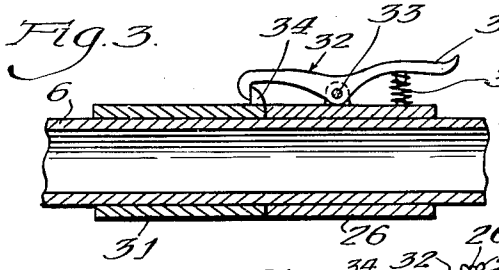
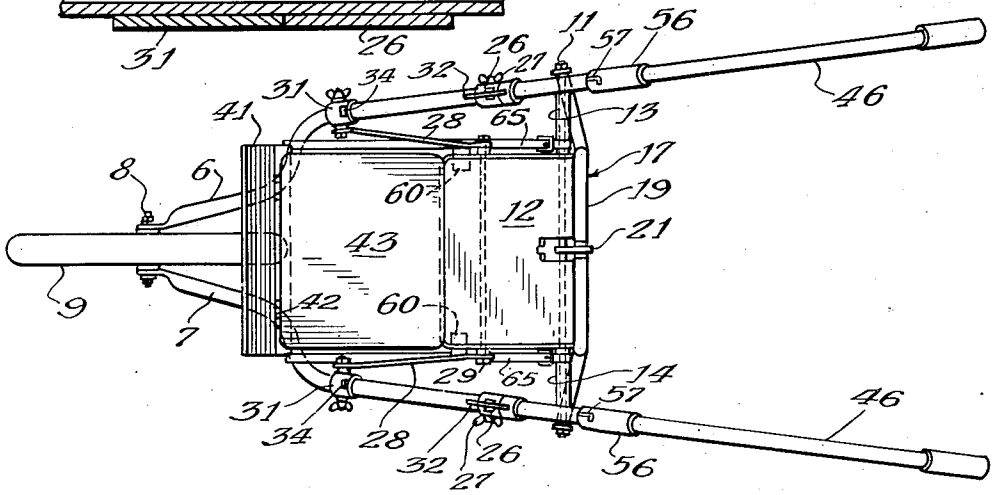


Fig. 2.



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Fig. 4.

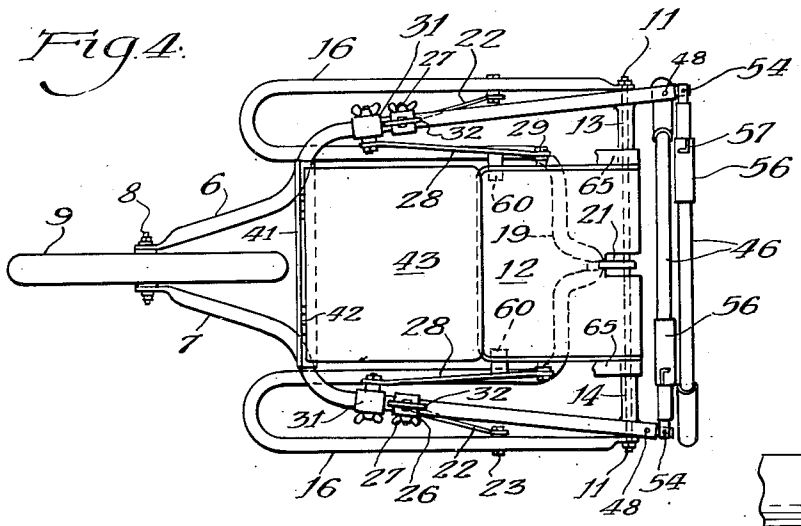


Fig. 8.

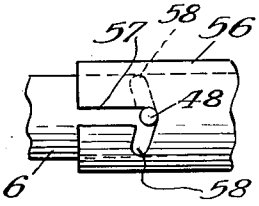


Fig. 9.

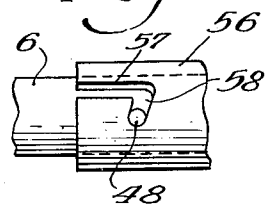


Fig. 5.

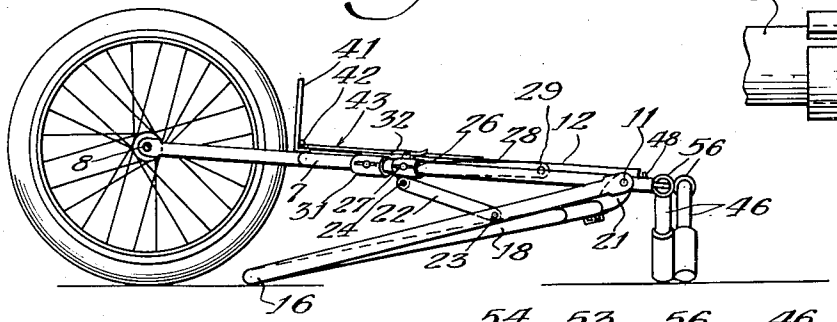


Fig. 6.

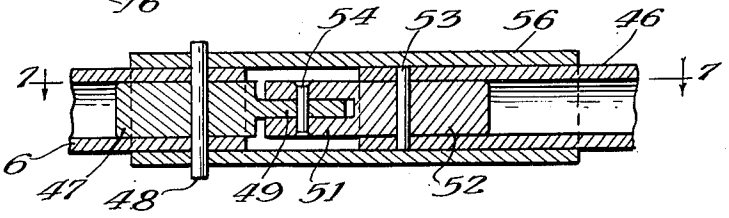
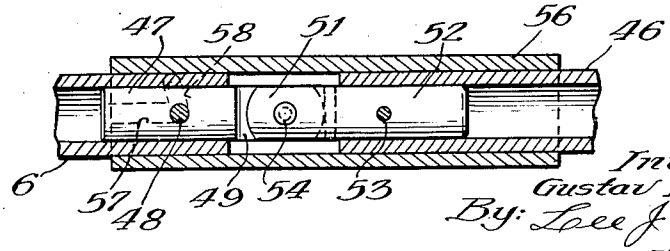


Fig. 7.



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Fig. 10.

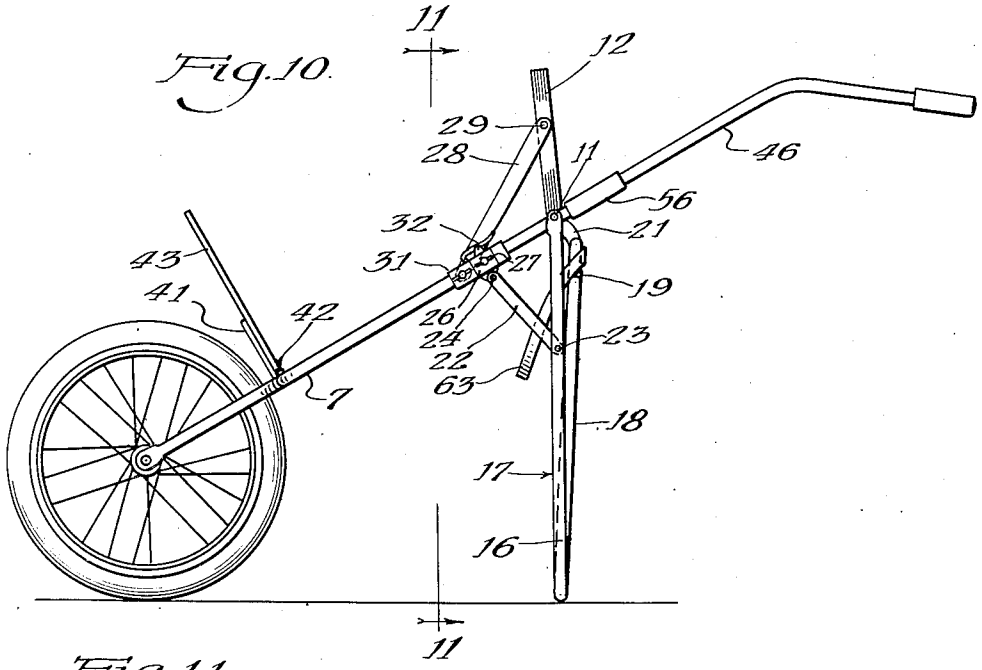


Fig. 11.

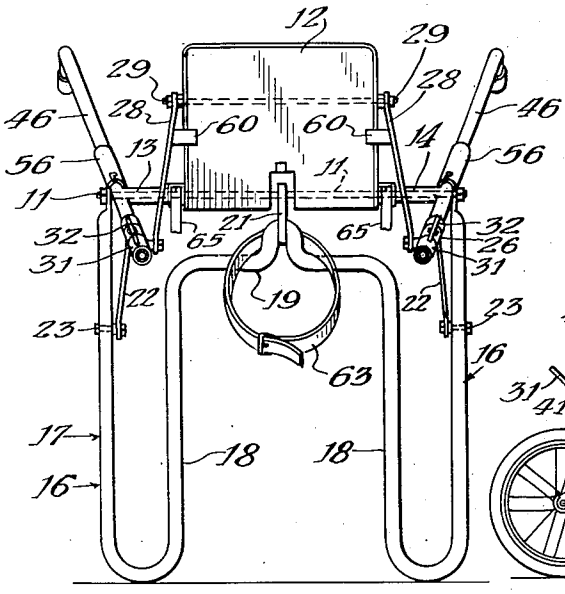
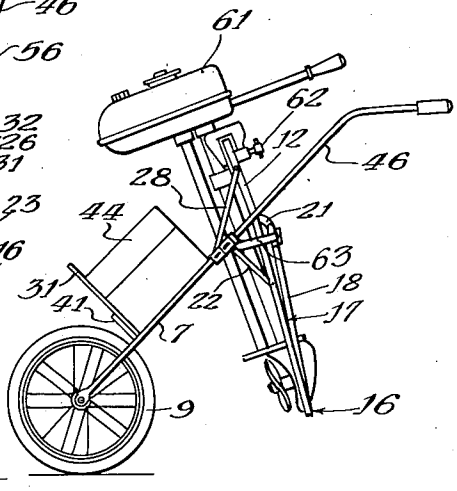


Fig. 12.



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UNITED STATES PATENT OFFICE

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COLLAPSIBLE MOTOR CARRIER

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Application January 11, 1946, Serial No. 640,539

3 Claims. (Cl. 280—36)

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This invention relates to improvements in carriers and is more particularly concerned with the provision of a carrier adapted to support an outboard motor of the type commonly used on boats. In the use of outboard motors on boats, the motor is connected to the boat for use in propelling same and is disconnected from the boat for storage when the boat is not in use. It has heretofore been difficult to transport an outboard motor between the point of storage and the point of use, due to the fact that outboard motors are relatively heavy and difficult to handle.

It is an object of the present invention to provide a relatively lightweight carrier upon which the motor may be detachably mounted for transportation to and from the point of use.

It is a further object of this invention to provide a carrier for outboard motors adapted to support the motor in an upright position in order that the motor may be started for testing purposes, or adjustments, prior to installation of the motor upon a boat.

It is a further object of this invention to provide a motor carrier which may be collapsed to form a relatively compact unit suitable for packaging or positioning within the trunk of an automobile.

It is a further object of this invention to provide a motor carrier embodying means for receiving and supporting fishing boxes and other items in addition to supporting an outboard motor.

It is a further object of this invention to provide a motor carrier which is relatively inexpensive and sturdy in construction and which will not readily get out of order.

This invention embodies other novel features, details of construction and arrangement of parts which are hereinafter set forth in the specification and claims and illustrated in the accompanying drawings wherein:

Fig. 1 is a side elevational view showing a motor carrier embodying features of this invention.

Fig. 2 is a top plan view of same.

Fig. 3 is a detail sectional view showing the latch means employed for holding the motor supporting plate of the motor carrier in extended position.

Fig. 4 is a plan view showing the motor carrier in its collapsed position.

Fig. 5 is a side elevational view of same.

Fig. 6 is a detail sectional view showing means employed for connecting the handle portions of the motor carrier to the side arms.

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Fig. 7 is a sectional view taken along the line 7—7 of Fig. 6.

Fig. 8 is a fragmentary detail view showing means employed for securing the handles of the motor carrier in distended position.

Fig. 9 is a fragmentary detail view similar to Fig. 8 showing a locking sleeve rotated to its locking position.

Fig. 10 is a side elevational view of the motor carrier showing the motor mounting plate in its upright position to receive an outboard motor.

Fig. 11 is a sectional view taken along the line 11—11 of Fig. 10.

Fig. 12 is a side elevational view of the motor carrier showing an outboard motor mounted in position thereon.

Referring now to the drawings for a better understanding of this invention, a motor carrier is shown as comprising a pair of side arms 6 and 7 having their forward ends secured to an axle 8 provided for a wheel 9. The side arms 6 and 7 diverge rearwardly and are connected at their ends by means of a transversely extending bolt 11.

A motor mounting plate 12 is journaled for pivotal movement on the bolt 11 from its position shown in Fig. 1 to its upright position illustrated in Figs. 10, 11 and 12. A pair of spacing collars 13 and 14 are preferably welded to the side arms 6 and 7, respectively, to receive the bolt 11 and to maintain the motor mounting plate 12 against lateral displacement relative to the side arms.

The back end of the side arms 6 and 7 of the motor carrier are adapted to be supported upon a pair of legs 16 which are formed from a single piece of tubing 17. At the free end of the leg portions 16, the tubing member 17 is bent upwardly at 18 and transversely at 19 for engagement with the central portion of the bolt 11 to reinforce the latter intermediate its ends. The transverse portion 19 of the tubing member 17 is welded or otherwise secured to a bearing plate 21 provided with an aperture to receive the bolt 11.

The legs 16 are adapted to be pivoted from their collapsed position illustrated in Fig. 5 to their supporting position illustrated in Fig. 10, and the legs are adapted to be maintained in supporting position by means of a pair of connecting links 22 having their one ends pivotally connected at 23 to their respective leg portions 16 and their other ends pivotally connected at 24 to their respective locking collars 26 provided for axial movement along their respective side arms 6 and 7. When the legs 16 are moved to a supporting position, as shown in Fig. 10, the collars 26 are locked against axial displacement

along their respective side arms 6 and 7 by means of locking screws 27. After the legs 16 have been moved to a supporting position, the motor supporting plate 12 may also be pivoted upwardly to its motor supporting position illustrated in Fig. 10. When the motor supporting plate 12 is in its upright position, it is supported against collapse by means of a pair of side arms 28 having their one ends pivotally connected to the sides of the motor supporting plate at 29 and their other ends pivotally connected to a pair of collars 31 mounted for axial movement along their respective side arms 6 and 7. A latch 32 is pivotally mounted at 33 upon each locking collar 26 for engagement with an abutment shoulder 34 provided on each sleeve 31. When the motor mounting plate 12 is in its upright position, as illustrated in Fig. 10, the latches 32 are in locking engagement with their respective abutment shoulders 34 to prevent axial displacement of the sleeves 31 along their arms 6 and 7. In moving the motor supporting plate 12 to its collapsed position illustrated in Fig. 1, the handle portions 36 of the latches 32 are pressed downwardly against the resistance offered by the compression springs 37 to release the abutment shoulders 34 to their engagement by the latches.

If desired, an angle-shaped cross frame 41 may be welded or otherwise secured to the side arms 6 and 7, and provided with hinge means at 42 for pivotal engagement with a plate 43 provided to receive and prevent displacement of articles, such as fishing tackle boxes 44, etc., positioned upon the carrier. A handle 46 is pivotally connected to the end of each side arm 6 and 7 for movement from a collapsed position as shown in Fig. 4 to an extended position as shown in Fig. 10. The connection between each handle and its respective side arm preferably comprises a plug member 47 secured within a side arm by means of a transversely extending pin 48. The plug member 47 is formed with a flattened end 49 for insertion in the bifurcated end 51 of a plug member 52. The plug member 52 is secured within the handle 46 by means of a transversely extending pin 53, and is pivotally connected to the plug member 47 by means of a bearing pin 54. Each handle 46 is secured in its extended position by means of a locking sleeve 56 formed with diametrically opposed slots 57 to receive the ends of a pin 48. In order to prevent accidental displacement of the sleeve 56 from its engagement with a pin 48, the inner end of each slot 57 is formed with a locking recess 58 to receive the ends of a pin 48.

When the several parts of the motor carrier are extended to their positions illustrated in Figs. 10, 11 and 12, an outboard motor 61 is adapted to be mounted upon the motor supporting plate 12 by means of locking screws 62 provided on the motor. In transporting the motor 61 over rough ground, it may be desirable to also secure the lower end of the motor to the transverse portion 19 of the tubular member 17 by means of a strap or belt 63. It will be noted that the legs 16 of the motor carrier are adapted to extend downwardly beyond the propeller end of the motor 61 to prevent contact of the motor against the ground when the motor carrier and motor are being supported upon the legs 16. Prior to mounting an outboard motor 61 upon a boat, it is often desirable to test or adjust the motor, and this may readily be accomplished by means of the motor carrier shown and described as the motor is supported in its proper operating position. It will further be noted that the motor carrier is designed to move the relatively heavy upper end of the outboard motor into position over the supporting wheel 9 when the handles 46 are raised upwardly to transport the motor.

When the motor carrier is not in use, the motor mounting plate 12 and plate 43 may be pivoted downwardly into alignment with the supporting arms 6 and 7, the leg 16 may be pivoted upwardly adjacent the supporting arms 6 and 7 and the handles 46 may be pivoted inwardly adjacent the ends of the supporting arms 6 and 7. When the mounting plate 12 is in its lowered position, it is supported in this position upon a pair of lugs 60 formed on the connecting links 28. It will also be noted that the free end of the plate 43 is adapted to rest upon the free end of the mounting plate 12, as illustrated in Fig. 2. In the use of a motor carrier of this type, it has been found desirable to provide a pair of belts 65 for securing articles, such as the fishing tackle box 45, against displacement from the carrier during travel over rough ground. When the motor carrier is collapsed, it forms a relatively small compact unit suitable for packaging or transportation within the trunk of an automobile.

While this invention has been shown in but one form, it is obvious to those skilled in the art that it is not so limited but is susceptible of various changes and modifications without departing from the spirit and scope of the claimed invention.

I claim as my invention:

1. A motor carrier comprising a wheel, a frame supported at its one end upon said wheel, legs to support the opposite end of said frame, said wheel and legs being formed and arranged to support said frame at an acute angle with respect to a horizontal plane, a motor mounting plate pivotally mounted on the central portion of said frame for movement from a collapsed position in alignment with said frame to an upright position substantially normal to the frame, connecting links having their one ends pivotally connected to said motor mounting plate and their other ends adjustably connected to said frame to support said motor supporting plate in its upright position, and means to support the free end of said motor mounting plate in its collapsed position.

2. A motor carrier comprising a wheel, a frame supported at its one end upon said wheel, legs to support the opposite end of said frame, said wheel and legs being formed and arranged to support said frame at an acute angle with respect to a horizontal plane, a motor mounting plate pivotally mounted on the central portion of said frame for movement from a collapsed position in alignment with said frame to an upright position substantially normal to the frame, connecting links having their one ends pivotally connected to said motor mounting plate and their other ends adjustably connected to said frame to support said motor mounting plate in its upright position, and lugs provided on said connecting links to support the free end of said motor mounting plate in its collapsed position.

3. A motor carrier comprising a wheel, a frame supported at its one end upon said wheel, legs to support the opposite end of said frame, said wheel and legs being formed and arranged to support said frame at an acute angle with respect to a horizontal plane, a motor mounting plate pivotally mounted on the central portion of said frame for movement from a collapsed position in align-

ment with said frame to an upright position substantially normal to the frame, connecting links having their one ends pivotally connected to said motor mounting plate and their other ends adjustably connected to said frame to support said motor mounting plate in its upright position, lugs provided on said connecting links to support the free end of said motor mounting plate in its collapsed position, and a plate member pivotally mounted on said frame adjacent the wheel for movement from an upright operative position to a collapsed position in alignment with the frame, said plate having its free end disposed for engagement against the free end of said motor mounting plate when the latter is in its collapsed position.

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