This invention relates generally to outboard motor carriers and pertains more particularly to a braking system therefor.

The primary object of the present invention is to provide a highly effective braking system for outboard motor carriers. In this regard the invention contemplates a braking mechanism of the foregoing character that will permit the user to apply a controlled braking action to the wheels of the carrier whenever it is found necessary to do so. In this way, even the largest outboard motors may be safely transported down relatively steep inclines without the likelihood of the person who is handling the carrier slipping. It will be recognized that slippage, while endeavoring to hold back a heavy motor, has often occurred in the past. Also, the invention permits the user to apply the brakes in order to take a rest when he is pulling the motor back up a hill.

Another object of the invention is to provide a braking system that will not destroy the collapsibility of the outboard motor carrier.

A further object is to provide a braking system in which the brakes may be applied without removing one’s hands from the carrier’s handles.

Still further, an object of the invention is to provide a brake equipped carrier that will be competitive in price with carriers currently found on the market having no brakes thereon.

Other objects will be in part obvious and in part pointed out more in detail hereinafter.

The invention accordingly consists in the features of construction, combination of elements and arrangement of parts which will be exemplified in the construction hereafter set forth and the scope of the application which will be indicated in the appended claims.

In the drawing:

Figure 1 is a perspective view of an outboard motor carrier illustrating one embodiment that my invention may assume, and

Figure 2 is a fragmentary perspective view depicting a modification of the invention.

Referring now in detail to Figure 1, the outboard motor carrier 10 exemplifying one embodiment of my invention comprises a pair of side frame members 12 having an axle 14 extending between their lower ends. Each end of the axle 14 has rotatably mounted thereto a wheel 16. Extending between the upper ends of the frame members 12 is a cross member 18 which may be in the form of a block of wood of substantial thickness so that the clamps of a conventional outboard motor (not shown) may be readily engaged therewith in the same manner that such clamps engage the stern end of a boat.

A clevis 20 is welded or otherwise fixedly secured to each frame member 12 near the upper end thereof. The clevises 20 have rearwardly directed arms 21 comprised of first arm sections 22 pivotally connected thereto by means of a pivot pin 24. The free ends of the arm sections 22 are telescopically received in additional arm sections 26 constituting the remainder of the arms 21. Handle grips 28 are located at the distal ends of said arm sections 26. The tubular arm sections 26 are retained in engagement with the arm sections 22 by means of removable pins 30 extending through said arm sections 22 into apertures formed in the ends of the arm sections 22, there being a short chain 32 extending between each pin 30 and a fixed pin 34 to prevent pin loss.

The arm sections 26 are provided with inwardly directed lateral ears or lugs 36 to which are pivotally attached lever elements 38 through the medium of pins 40. Through the agency of a common pin 42 the opposite ends of the lever elements 38 are pivotally connected to each other and to a tongue 44.

The tongue 44 is apertured for the accommodation of the upper looped end of a cable 48. A transverse rod 50 has its ends secure to the frame members 12. At the center of the rod 50 is rotatably mounted a sheave or pulley 52 over which the cable 48 is entrained. The axle 14 in addition to serving as a support for the wheels 16 also functions as a support for a second sheave or pulley 54, the cable 48 further passing about this last element.

The lower looped end of the cable 48 is engaged with an apertured ear or lug 56 affixed to a transverse rod 58 swingingly suspended by reason of a pair of rocker arms 60. The upper ends of said rocker arms 60 are pivotally fastened to the side frame members 12 via pins 62. The arms 60 are formed with medially located apertures 64 having received therein the lower hooked ends of coil springs 66. The upper hooked ends of said springs 66 engage apertures 68 disposed in inclined braces 70 having attachment at their lower ends to the frame members 12 by pins 72 and at their upper ends to the arm sections 22 by pins 74.

The extremities of the transverse rod 58 carry a pair of brake shoes 76 which are engageable with the respective peripheries of the wheels 16. Normally, though, the coil springs 66 act in a direction to bias the shoes 76 away from the wheels 16.

However, when the use of the embodiment wishes to apply the brakes, he merely spreads apart the arms 21 in scissors-like fashion, thereby tensioning the cable 48 and consequently pulling the transverse rod 58 nearer the axle 14. Such movement obviously brings the brake shoes 76 against the wheels 16, the springs 66 yielding sufficiently to permit this. It will be apparent that the operator can apply whatever force is necessary to effect the braking action, for he has a considerable amount of leverage available owing to the articularive manner in which the arms 21 and the lever elements 38 are mounted.

For the purpose of describing and claiming this invention the arms 21 and the grips 28 will collectively be considered to constitute a single member, and it is through the agency of these elements that the carrier 10 is handled and controlled. The telescoping connection of the arm sections 22, 26 of course permit the sections 26 to be disengaged by removing the pins 30, the cable 48 readily flexing so as to allow the sections 26 and lever arms 38 to be brought into substantial parallelism with the frame members 12. In this way the carrier 10 can easily be stowed in an automobile trunk or other compartment until needed. Further, it will be appreciated that the braces 70 are relatively thin in a transverse direction, thereby permitting easy pivoting of the arm sections 22 about the pins 24, the braces readily flexing when this is done so that the cable 48 will be pulled to apply the brakes.

Considering now the embodiment of Figure 2 which has been assigned the reference numeral 80, it can be
seen that there is a basic similarity between this modification and the earlier described embodiment 10. For this reason, the embodiment 80 has been only fragmentarily pictured, sufficient identity of parts and reference numerals where such identity exists serving to orient the reader.

While in the embodiment 10 the handle means comprised of the arms 21 were made separable through the employment of the arm sections 22 and 26, in the instant embodiment 80, however, unitary arms 82 are utilized. These arms 82 are generally tubular in the region designated by the numeral 84 but are pressed into a substantially flat state in the region denoted by the numeral 86. Owing to the fact that the flat regions 86 reside in vertical planes, the arms 82 are easily flexed to tension the cable 48.

Because the arms 82 are detachably connected to the side frame members 12 by reason of wing nuts 88, it will be appreciated that removal of these nuts 88 will permit virtually complete collapse of the carrier 80.

In use, the carrier 80 is operated in an identical way to the carrier 10. Thus, the spreading of the arms 82 is responsible for tensioning the cable 48 to apply the brakes 76. Of course the thinness of the regions 86 permit ready flexing in a horizontal direction, yet resist deflection because of their greater vertical height in an up and down direction. Proper dimensioning of the regions 86 obviates the need for the braces 70 mentioned in the earlier described embodiment 10.

As many changes could be made in the above construction and many apparently widely different embodiments of the invention could be made without departing from the scope thereof, it is intended that all matter contained in the above description or shown in the accompanying drawing shall be interpreted as illustrative and not in a limiting sense.

It is also to be understood that the language used in the following claims is intended to cover all of the generic and specific features of the invention herein described and all statements of the scope of the invention which, as a matter of language, might be said to fall therebetween.

What is claimed:

1. An outboard motor carrier comprising a pair of side frame members, an axle element extending between the lower ends of said frame members, a pair of wheels mounted on said axle element for supporting said frame members, a cross member extending between an upper section of said frame members to which an outboard motor is clamped during transportation thereof, a rocker arm pivotally connected to each frame member at a locus spaced from said wheels, a brake shoe attached to the free end of each rocker arm, a transverse rod element extending between the free ends of said rocker arms so as to cause said brake shoes to move in unison, a cable having one end connected to said transverse rod, a first pulley mounted on said axle element intermediate said wheels, a second pulley mounted for rotation above said first pulley, handle means including a pair of arms capable of being laterally deflected, said handle arms being connected to said frame members adjacent the ends of said cross member and extending in a generally normal direction away from said frame members by which a person can maneuver the carrier, and cable tensioning means supported by said handle means including a pair of lever elements having adjacent ends connected to the other cable end and having opposite ends connected to said handle arms near the free ends thereof for urging said brake shoes against said wheels, said cable being entrained over said first and second pulleys.

2. An outboard motor carrier in accordance with claim 1 including spring means connected to one of said arms for normally retracting said brake shoes, operation of said cable tensioning means overcoming said spring means.

3. An outboard motor carrier in accordance with claim 1 in which said handle arms are pivotally attached to said side frame members.

4. An outboard motor carrier in accordance with claim 1 in which said handle arms are fixedly attached to said side frame members but include relatively thin regions so as to permit lateral flexing thereof.

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