

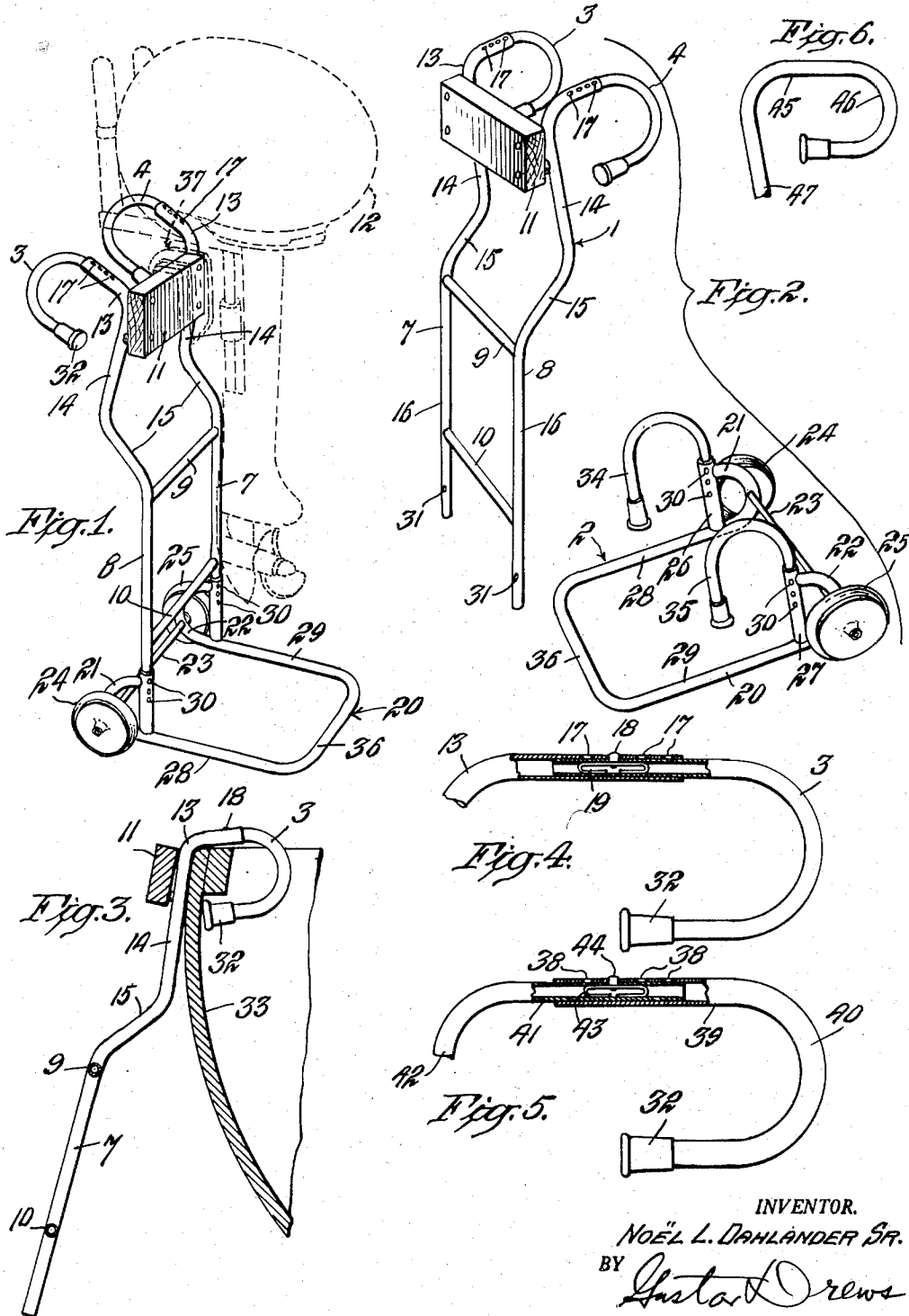
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COMBINATION LADDER AND OUTBOARD MOTOR CARRYING HAND CART

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COMBINATION LADDER AND OUTBOARD MOTOR CARRYING HAND CART

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1 Claim. (Cl. 280—47.18)

This invention relates to combination ladders and motor carrying hand carts, and more particularly to a sectional combination ladder and outboard motor carrying frame.

Among the objects of the present invention, it is aimed to provide a sectional combination ladder and outboard motor carrying hand cart which can be used as two independent ladders, one long and the other relatively short, to be secured to the gunwale or transom of a motorboat, and which ladders in turn can be assembled to form a handtruck or carrying frame for an outboard motor, the longer ladder section in truck assembled position having the motor attached to it, and the shorter ladder section provided with wheels to facilitate moving the motor when mounted on said truck-forming frame, and said shorter ladder also serving as a foot or support to enable the assembled truck-forming frame when supporting a motor to stand erect or upright.

It is still another object of the present invention to provide a sectional combination ladder and outboard motor carrying hand cart consisting essentially of two ladders and handles for the ladders, which ladders and handles can be assembled to form a handtruck and carrying frame for an outboard motor, and which ladders can be independently equipped with handles and secured to the gunwale or transom of a motorboat and suspended over the side of a motorboat as swimming ladders.

These and other features, capabilities and advantages of the invention will appear from the subjoined detailed description of specific embodiments thereof illustrated in the accompanying drawings, in which—

Fig. 1 is a perspective of the combination assembled into a handtruck or carrying frame for an outboard motor with an outboard motor shown in dotted lines.

Fig. 2 is an exploded view showing the two sections in independent ladder forming condition.

Fig. 3 is a longitudinal section of the longer ladder section secured to the gunwale of a motorboat and suspended from the side thereof.

Fig. 4 is an enlarged detail partly in section illustrating the connecting means for attaching the sections to one another and the handles to the sections.

Fig. 5 is an enlarged detail similar to Fig. 4 showing another modification of the connecting means.

Fig. 6 is an enlarged detail similar to Fig. 4 showing still another modification where the upper handle and stile are integral with one another.

In the embodiment illustrated in Figs. 1 to 4, inclusive, there are shown two main ladder sections 1 and 2, and two pairs of crook-shaped handles 3 and 4, and 34 and 35. The main ladder section 1 as shown in Fig. 2 consists essentially of two stiles 7 and 8 and a plurality of rungs, the present embodiment being provided with two lower rungs 9 and 10 and a dual purpose upper rung 11 which also serves as the support for the outboard motor 12 shown in dotted lines in Fig. 1. The stiles 7 and 8 and rungs 9 and 10 are preferably composed of metal

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stock, cylindrical or pipelike in form, while the rung 11 is preferably composed of wood.

The stiles 7 and 8 are alike in shape, each having an upper handle receiving portion 13 which extends substantially at right angles to the upper upright portion 14, which in turn extends substantially at an acute angle of about 45° to the intermediate portion 15, which in turn extends at an acute angle of about 45° to the lower upright portion 16, so that the portions 14 and 16 which extend away from one another relative to said intermediate portion and substantially in the same general direction as shown.

The upper handle receiving portions 13 are preferably each provided with a plurality of orifices 17 to receive a spring-pressed button, such as the button 18, see Fig. 4, secured to the bent flat spring 19 mounted in the chambered portion of the inner end of a handle, such as the handles 3 or 4.

The shorter ladder section 2 consists essentially of the U-shaped foot portion 20 which in the present instance is provided with two looped portions 21 and 22 through which extends the rod or shaft 23 on the outer ends of which, extending outside of the looped portions 21 and 22, there are rotatably mounted the wheels 24 and 25, respectively. The looped portions 21 and 22 are connected to the short uprights 26 and 27 which extend upwardly from the limbs 28 and 29, respectively, of the U-shaped foot portion 20.

The upright portions 26 and 27 are preferably provided with apertures 30. The upright extensions 26 and 27 are of a diameter telescopically to receive the lower ends of the lower upright portions 16 of the ladder section 1. The lower portions of the upright portions 16 are preferably each provided with a spring-pressed button, such as the button 18 of Fig. 4, secured to a flat spring 19 mounted in the upright portion 16 and extending through an opening 31.

The outer ends of the handles 3 and 4 are provided with rubber caps or buffers 32 to engage the inner face of the gunwale 33 of a vessel, see Fig. 3, and thus protect the same from injury when the combination is used as a ladder.

The diameters of the stiles 7 and 8 are greater than the diameters of the handles 3 and 4, respectively, in order telescopically to receive the same. In turn, the diameters of the upright extensions 26 and 27 are larger than the diameters of the stiles 7 and 8, respectively, in order telescopically to receive them. When the section 2 is used as a ladder, the extensions 26 and 27 are preferably provided with the handles 34 and 35 similar to the handles 3 and 4 to grip the gunwale of a vessel. The diameter of the tubular stock of the handles 34 and 35 is similar to the diameter of the tubular stock of the stiles 7 and 8 so that the handles 34 and 35 snugly fit in the tubular extensions 26 and 27 when telescopically received by the extensions 26 and 27 as shown in Fig. 2. The handles 34 and 35 are also each provided with an orifice therein similar to the orifice 31 of the upright 16 through which protrude spring pressed buttons, such as the button 18 secured to a looped flat spring 19 mounted in the tubular stock of the inner end portions of the handles 34 and 35.

When the section 2 is used as a ladder, then the cross piece 36 alone serves as a rung, and the handles 34 and 35 assume the position on the upper end of the gunwale such as assumed by the handle 3 shown in Fig. 3. If, however, the section 1 is used as a ladder, then in addition to the rungs 9 and 10 the wooden cross piece 11 will also serve as a rung at least to enable the swimmer to grasp the same when climbing up on the ladder formed by the section 1.

When the combination is to be stored away, the sec-

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tions 1 and 2 are of course separated from one another, the handles 3 and 4 removed from the section 1, and the handles 34 and 35 removed from the section 2.

In turn, when the combination is to be used as an outboard motor carrying frame, then preferably as shown in Fig. 1, the handles 3 and 4 will be secured in the handle receiving extensions 13, the handles 34 and 35 removed from the section 2, and the lower ends of the upright extensions 16 secured in the upright extensions 26 and 27 of the section 2 with the U-shaped foot portion 20 extending in a direction opposite to the direction of the handles 3 and 4, see Fig. 1. Thereupon the fastening clamp or hook 37 of the motor is secured to the wooden cross piece 11 as shown in Fig. 1. When so secured to the cross piece 11, the lower end of the motor 12 will be spaced from the foot portion 20. Due to the weight of the motor 12, it may be desirable to lay the section 1 on the ground when securing the clamp 37 to the cross piece 11. On the other hand, if properly supported, the combination frame when assembled as shown in Fig. 1 may be positioned upright resting on the foot portion 20. Preferably the wheels 24 and 25 will be so mounted that the foot portion 20 will lie flat on the ground in the upright position of the combination frame in the interest of steadiness, either when attaching the motor 12 to the cross piece 11 or when removing the motor 12 from the cross piece 11, or when storing the motor so mounted on the combination frame in upright position. In turn, the wheels 24 and 25 will be so positioned relative to the U-shaped foot portion 20 that when tilted slightly backward, the combination frame can ride upon the wheels 24 and 25 without any hindrance from the foot portion 20. The foot portion 20 is long enough so that it may be engaged by the foot of the attendant either when mounting the engine 12 on the cross piece 11 or when removing the motor 12 from the cross piece 11, and the attendant thus by the weight of his body counterbalances or prevents tilting of the frame when he is manipulating the motor.

In the embodiment illustrated in Fig. 5, the button receiving openings 38 are mounted in the tubular stock 39 of the handle 40 and the handle receiving portion 41 of the stile 42, similar to the stile 7 or 8 of the embodiment illustrated in Fig. 1, is provided with the bent flat spring 43 to which is secured the button 44 extending through an opening in the handle receiving portion 41, in turn to snap into one of the openings 38 of the handle 40. The plurality of openings 38 in the handle 40, the plurality of openings 17 in the handle receiving portions 13, and the plurality of openings 30 in the upright extensions 26 and 27 are provided to afford adjustment, either of the handles to accommodate a wider or narrower upper edge of a gunwale 33, see Fig. 3, or in the case of the positioning of the upright portions 16 in the upright portions 26 and 27, to provide for a variation in the length of the section 1 relative to the foot portion 20.

In the embodiment illustrated in Fig. 6, the upper handle receiving portion 45 and handle 46 are integral with one another. In other words, one and the same tubular stock is formed not only into the stile 47 and upper handle receiving portion 45, but also into the handle 46.

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It is obvious that various changes and modifications may be made to the details of construction without departing from the general spirit of the invention as set forth in the appended claim.

It is, of course, also obvious that the embodiment illustrated in Fig. 6 is particularly desirable when the ladder is fabricated for a predetermined dimension of gunwale, that is, where adjustment is unnecessary. In the first place, when the handles at the upper ends of the stiles are integral with the stiles, there is of course no danger of the handles becoming accidentally dislodged from the stiles. In the next place, it makes it possible to have only four parts for the sectional ladder, to wit, (1) the section 1 with the upper handles integral therewith, (2) the section 2 with the wheels, and (3), (4) two handles, such as the handles 34 and 35 illustrated in Fig. 2.

I claim:

A combination ladder and motor carrying hand cart comprising a first tubular metal section having a pair of stiles having an upper rearward upright portion, and a lower forward upright portion, a cross piece composed of wood connected to the front side of said upper upright portion to receive the clamp of an outboard motor, a plurality of tubular metal rungs connected to the lower forward upright portion with the rungs in one plane and the cross piece in another plane substantially parallel to the plane of the rungs but offset rearwardly of the plane of the rungs, to enable the rungs to form a support for the lower frame of the outboard motor when said first section rests on the ground and the clamp of the outboard motor is being secured to said cross piece, tubular metal handles extending rearwardly at the upper ends of said stiles, a second tubular metal section having a U-shaped extension, enlarged tubular uprights extending up at right angles at the rear of said U-shaped extension, said U-shaped extension having looped end portions extending beyond, and rearward upwardly into engagement with, said enlarged uprights, a shaft extending through said looped end portions, and wheels mounted on the ends of said shaft outside of said looped end portions, said shaft being spaced from said enlarged uprights and from the plane of said U-shaped extension a distance substantially equal to the radius of said wheels, said enlarged uprights telescopically receiving the lower ends of said stiles with said U-shaped extension extending at right angles and forwardly of said stiles.

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