March 29, 1955 R. K. McMULLAN 2,704,933

LOCK FOR OUTBOARD MOTORS

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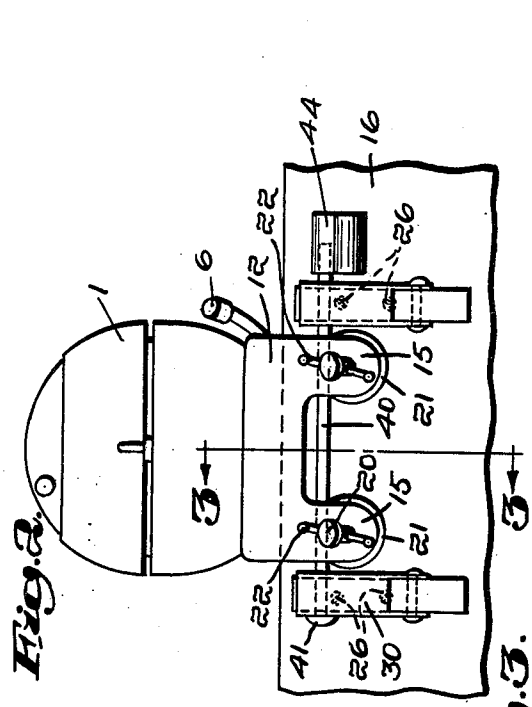


Fig. 2.

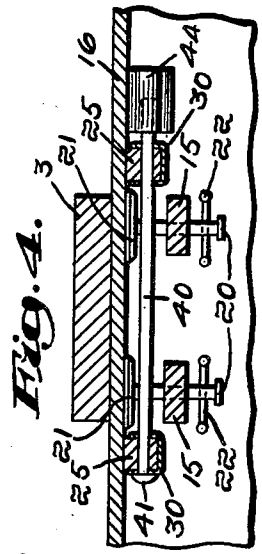


Fig. 4.

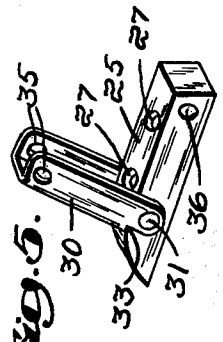


Fig. 5.

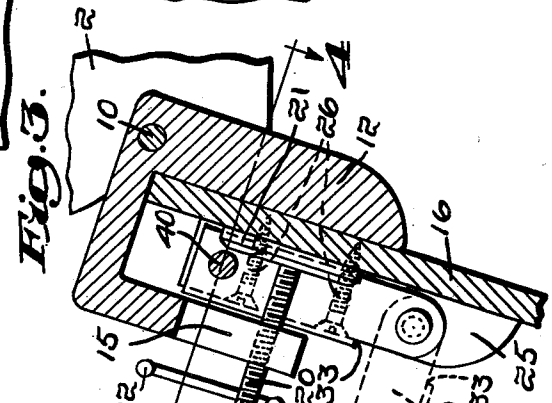


Fig. 3.

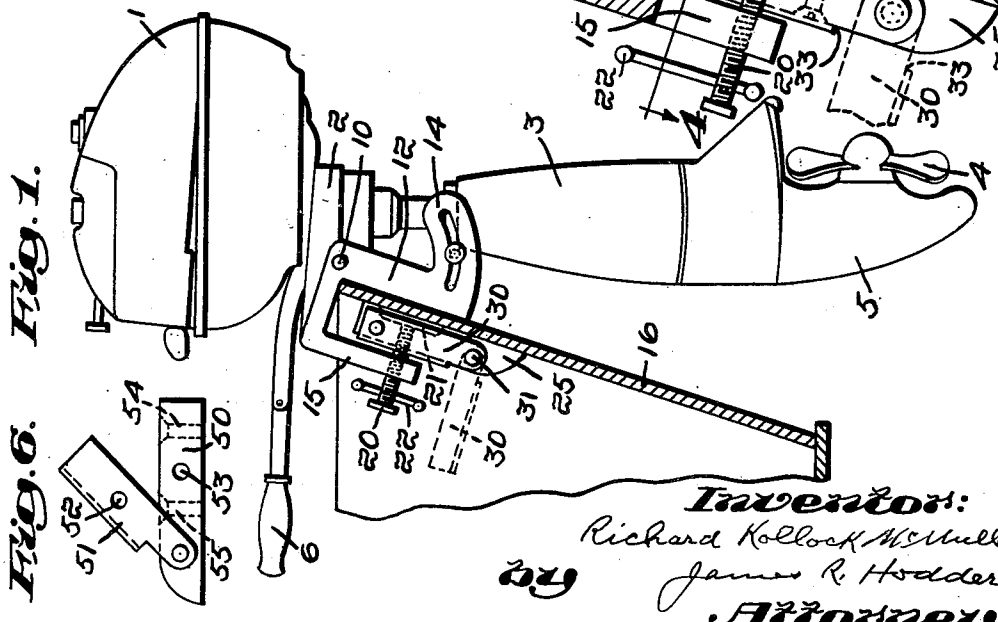


Fig. 1.

Fig. 6.

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LOCK FOR OUTBOARD MOTORS

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1 Claim. (Cl. 70—58)

My present invention is an improved locking device constituting a safety means to hold standard types of outboard motors in theft-proof engagement to the support on which the motor is mounted, whether on a boat or while in storage.

The usual and standard type of outboard motors generally includes a pair of spaced clamping arms which fit over the stern transom of a boat, or other support, thru which arms rotatable clamping screws are threaded with one end of the clamping screws fitted by a ball and socket joint, or equivalent, to a button or foot which rests against the transom or support; and with the opposite and outer end of each clamping screw provided with a lever, or equivalent device, to rotate the clamping screw and to force and hold the contacting foot in firm engagement.

Heretofore various attempts have been made to provide suitable locks for such outboard motors but all such prior efforts involved complex or expensive equipment, such as apparatus to enclose the clamping screws or to encircle the clamped feet or buttons, or to provide separate locking devices for each of the pair of clamping arms or the like mechanism.

My present invention is directed to obviate all such complex and expensive equipment and to improve, perfect, and simplify outboard motor locking mechanism which will also be economical to manufacture and simple in construction and application.

It is, therefore, an important object of my present invention to provide an extremely simple, efficient, and compact set of devices which will be light in weight, strong, and serviceable and easily fitted in secure locking engagement with the clamping screws after the pair of such screws have each been rotated to lock the clamp in engagement with the support.

A further important object is to so construct and arrange my locking instrumentalities that a single locking bar will extend into locking engagement with both of the pair of spaced arms by the simple operation of sliding a rod thru a pair of clamps fitted outside the clamping screws and in close engagement with the buttons or feet of the rotatable screws and thereupon snap on a lock at one end of such rod.

It is a further object of the invention to provide locking equipment which will be suitable for any size or width of outboard motor clamps, thus constituting a universally applicable locking apparatus.

It is a still further object of my invention to provide a pair of blocks or plates which can be readily fitted to the supporting element for the clamping arms to constitute a guide for accurately positioning the outboard motor onto the supporting element and simultaneously to permit the clamping arms to slide downwardly between said blocks into final position, whereupon the clamping screws are rotated and, thus, hold the motor in properly aligned position on the support.

This feature is of special advantage as when a motor is being fitted to a small boat in a rough sea, for example, the clamping arms are apt to slide on the top of the transom and to throw both the operator and the motor off to one side into an upset condition.

A further object is to provide a pair of blocks or plates which will be compact and unobtrusive and which are permanently secured to the inside of the boat transom by screws or bolts into the transom, with the heads of the screws covered and protected. Such cover is also locked against tampering by a sliding rod which, thus,

simultaneously secures both the buttons on the threaded screws and the covers on the blocks.

In carrying out my invention, I provide a pair of blocks or plates adapted to be permanently attached by screws or bolts to the transom or other support, being thus fitted to the transom in proper spaced relation to receive any desired size of clamping arms of an outboard motor. Each of said plates is perforated to receive attaching means and is equipped with a pivoted cover which can be raised to enable the attaching screws to be applied, and thereupon the cover is lowered to cover the heads of the screws. Both the cover and the plate are perforated with aligned holes to receive the locking rod. Such plates may be of wood or metal and the cover is preferably of metal, as well as the locking rod, which is of appropriate diameter to slide therethru and is provided with a head on one end and with notches on the other to enable a lock to be snapped thereon.

These holes on each plate and its attached cover are so positioned and arranged as to be closely adjacent to the buttons on the inner end of the threaded clamping screws so that the locking rod when slid thru the plates will be in sliding contact with or so close to the top part of each of said buttons, thereby preventing loosening of the same to any considerable extent. Even if the threaded clamps are loosened somewhat, the locking rod prevents their withdrawal, and said rod being engaged by the fixed plates prevents the lifting and removal of the motor.

Further novel features of construction, advantages, and improvements will be hereinafter more fully pointed out and claimed.

Referring to the drawings illustrating preferred embodiments of my invention:

Fig. 1 is a diagrammatic view of a suitable type of outboard motor applied to the transom of a boat, the transom being shown in cross-section;

Fig. 2 is an end elevational view;

Fig. 3 is an enlarged fragmentary view partly in cross-section on the line 3—3 of Fig. 2;

Fig. 4 is a cross-sectional view on the line 4—4 of Fig. 3;

Fig. 5 is a perspective view of the blocks or plates utilized, and

Fig. 6 is a modified view of the block or plate.

As shown in the drawings, a typical outboard motor is indicated with a top portion at **1** rotatably mounted on a base **2**, with a depending housing **3** enclosing the mechanism to rotate a propeller **4** behind a guard **5**. An operating handle **6** is secured to the motor **1** to rotate same on the base **2**. Pivotally attached to the base **2** at **10** is a U-shaped bracket **12**, having an angle adjusting quadrant **14** and depending arms **15** spaced sufficiently to fit over and partially enclose the supporting element, here illustrated as a stern transom **16** of a boat. Two depending arms **15** are formed integral with the bracket **12**, as illustrated in Fig. 2. The lower portion of each depending part **15** is threaded to receive a rotatable clamping screw **20** having its inner end fitted to a button **21** on the inner end by a ball and socket or other self-adjusting joint, and with the opposite outer end of the screw **20** provided with a rotating lever **22**.

My locking instrumentalities comprise a pair of plates **25** adapted to be permanently attached to the inside of the transom **16** outside the clamping buttons **21** by a pair or set of screws or bolts **26** passing thru holes **27** formed in the plate **25**, which are thereupon covered and protected by a hinged cover **30**.

This cover **30** is in the form of a trough and is pivotally attached adjacent one end of the plate **25** by a rivet **31**, said trough-like member having the top surface cut away, as best shown in dotted lines in Fig. 3 at **33** to permit the cover **30** to be rocked on its pivot **31** and the screws **26** to be applied. Thereupon the cover is closed over the heads of the screws **26**, see Fig. 5. Both the cover **30** and the plate **25** are provided with transverse holes **35** and **36**, respectively, which are in alignment when the cover is closed and thru which a locking rod **40** is slid after the clamping

screws have been rotated and the buttons **21** are in engagement with the face of the transom **16**.

This locking rod has a head **41** at one end and at the other end is provided with cooperating means to receive and hold a lock **44** of any suitable kind, such cooperating means consisting in notches or the like (not shown) in the adjacent end of the rod **40**. Thus, when the rod **40** is slid in position thru the openings **35** and **36** in each of the spaced plates **25** and the lock **44** snapped onto the end, the motor is securely held in locked position.

It is desirable to have the cross-locking rod **40** closely adjacent to the clamping screws **20** and, therefore, I may form the plate and cover as shown in Fig. 6. In this form, the plate **50** and its pivoted cover **51** have the openings to receive the rod **40** positioned as indicated at **52** and **53** between the attaching screws fitted in the openings **54** and **55**.

Thus the locking rod **40** is closely adjacent the central part of each button **21** and prevents loosening, jiggling, or springing of the buttons around the rod **40** and, hence, tends to hold them in firm engagement. Even if the rod were sprung, the motor would still be locked against theft or removal by the rod **40** held in the fixed plates **25**.

I claim:

Means for locking an outboard motor of the kind described to a support, said outboard motor having U-shaped clamping arms which fit over said support, and clamping screws, with self-adjusting buttons on the support-engaging ends thereof, carried by said arms, said locking means comprising a pair of plates each having at least one opening therethrough for the reception of means to secure said plates to a support and an additional opening therethrough for reception of a locking rod, a pair of U-shaped covers, each of which is pivoted, adjacent one end thereof, to one of said plates

and adapted to be moved to a first position in which the cover blocks access to one end of the securing means receiving opening through the respective plate and to a second position in which access to said one end of said securing means receiving opening is permitted, each of said covers having an opening therethrough adjacent the distal end thereof which, when said cover is in said first position, is in alignment with the respective locking rod-receiving opening, said pair of plates being adapted to be secured to a support in such spaced relation as to constitute a guide for applying an outboard motor to the support, such securing being effected by securing means inserted through the securing means receiving opening in the respective plate from the end of such opening which is blocked by the respective cover when in said one position, a single locking rod removably extending through the locking rod-receiving openings in said pair of plates and through said openings in said pair of covers, said locking rod having a head on one end thereof which is larger than said openings and means on the opposite end thereof for interlocking with a removable lock, and a removable lock interlocked with said opposite end of said locking bar, said locking bar, when said pair of plates are secured to a support on which an outboard motor is mounted, being so positioned as to lie closely adjacent the clamping screws and the self-adjusting buttons thereon in such relationship as to prevent removal of the outboard motor from the support.

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