Oct. 11, 1960 E. C. MITCHELL 2,955,453

OUTBOARD MOTOR LOCK

Filed Feb. 3, 1958

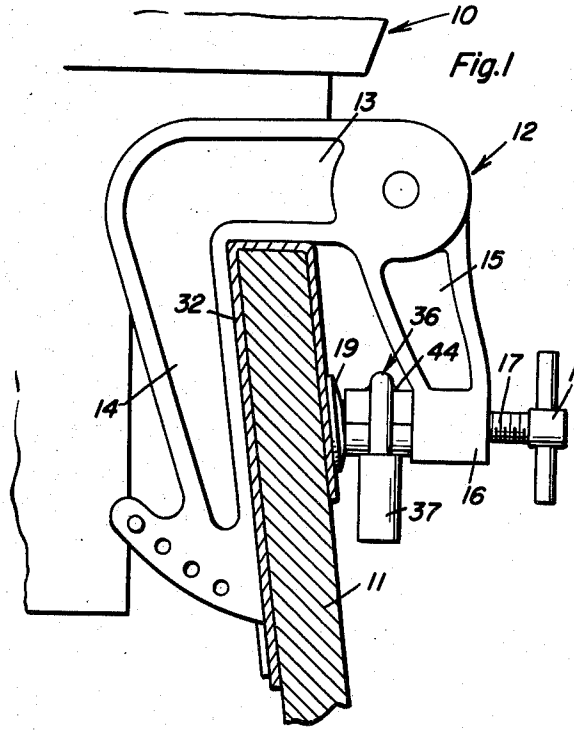


Fig. 1

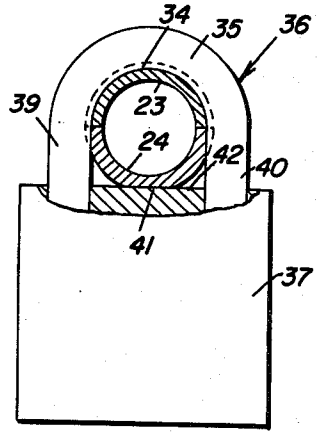


Fig. 3

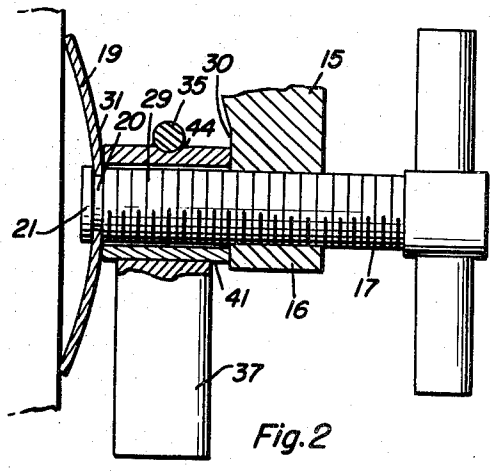


Fig. 2

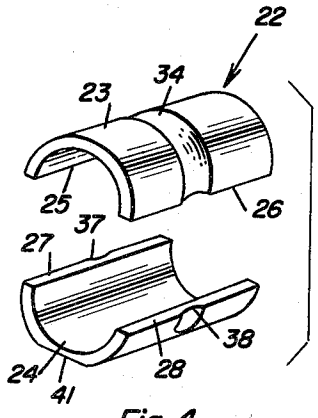


Fig. 4

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2,955,453

Patented Oct. 11, 1960

2,955,453

OUTBOARD MOTOR LOCK

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Filed Feb. 3, 1958, Ser. No. 712,819

4 Claims. (Cl. 70—58)

This invention relates in general to lock assemblies and pertains more particularly to a lock assembly adapted to prevent unauthorized removal of an outboard motor from the transom of an associated boat.

Of primary concern in connection with this invention is to provide an assembly for locking an outboard motor to the transom of a boat to prevent unauthorized removal thereof and which assembly will also be effective to prevent loosening of the motor mounting assembly due to vibration when the motor is in operation.

Another object of this invention is to provide an improved means for locking an outboard motor in mounted position and which improvement, while simple in construction, is nevertheless effective for the purposes intended.

A further object of this invention is to provide a novel lock for outboard motors incorporating a longitudinally split sleeve assembly and in conjunction therewith a lock for permitting the sleeves to be separated when the lock is opened and which holds the two sections of the sleeve together when the lock is closed so as to be disposed about the clamping bolt of an outboard motor mounting assembly in position on the bolt between the frame of the mount and the enlarged head portion of the bolt which engages the boat transom.

A further object of this invention is to provide a novel lock assembly of the character described which is easily fitted to conventional motor mounting means.

A further object of this invention is to provide a novel outboard motor lock assembly for cooperation with a conventional mounting means for the outboard motor and which lock assembly includes a longitudinally split sleeve having upper and lower sections with the upper section having a circumferentially extending groove provided midway between its ends and receiving therein the bight portion of a lock hasp disposed in straddling relationship to the upper section and with the legs of the hasp extending downwardly beyond the lower section of the sleeve with the lock body proper serving to bridge between the hasp legs to engage the lower sleeve section and maintain the two sections in operative engagement with each other.

Still another object of this invention is to provide a novel locking assembly for outboard motors wherein the component parts thereof are so constructed as to interfittingly engage when the assembly is in locked position while still permitting easy removal thereof.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawing forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a vertical section through a boat transom and showing an outboard motor mounting assembly operatively associated therewith and illustrating the locking assembly associated therewith;

Figure 2 is an enlarged vertical section taken through a portion of the outboard motor mounting assembly and illustrating further details of the locking assembly;

Figure 3 is a transverse section taken through the locking sleeve assembly; and

Figure 4 is an exploded perspective view showing the locking sleeve assembly.

Referring at this time more particularly to Figure 1, the reference numeral 10 indicates in general an outboard motor for boats, and the reference numeral 11 indicates the transom of an associated boat to which the outboard motor is secured. For the purpose of securing the outboard motor 10 to the boat, the same is conventionally provided with a mounting clamp assembly indicated generally by the reference character 12 and including a bight portion 13 and a pair of spaced depending legs 14 and 15, which are spaced apart a distance greater than the thickness of the transom 11 and which are adapted to straddle the same as shown in Figure 1. The lower end of the leg 15 is provided with an internally threaded boss 16 having the threaded shank 17 of a mounting bolt 18 engaged therethrough and the mounting bolt carries at its inner end an enlarged head element 19 adapted to firmly press against the transom assembly and rigidly clamp the motor 10 to the transom in operative position for propelling the boat.

Figure 2 illustrates further details of the mounting bolt assembly and it will be seen that the mounting bolt is provided at one end of its shank 17 with a reduced portion 20 and that the head 19 is preferably of dished washer construction received on the reduced portion 20 with the end portion 21 of the shank being headed over to retain the head 19 in place thereon and this construction is usually so arranged as to rather loosely hold the head 19 to permit the same to align itself with the surface upon which it is engaged. It is to be appreciated that the above mentioned construction is of an entirely conventional nature and represents a common type of mounting for outboard motor assemblies.

The locking assembly forming this invention comprises, as shown most clearly in Figure 4, a longitudinally split sleeve assembly indicated generally by the reference character 22 and which sleeve assembly includes the upper and lower sections 23 and 24 respectively adapted to be engaged with their longitudinal edge portions 25, 26 and 27, 28 in engagement and in enclosing relationship to the portion 29 of the threaded shank 17 of the mounting bolt which extends between the inner face 30 of the boss 16 and the opposed face 31 of the head 19 of the mounting bolt. That is to say, the sleeve assembly 22 is of a length as to snugly engage between these surfaces 30 and 31 when the clamping bolt is firmly engaged against the transom of the boat to rigidly mount the outboard motor thereon. Obviously, there can be no assurance that the length of the portion 29 of the shank of the mounting bolt will always be such as to allow the sleeve assembly 22 to be snugly engaged between the two surfaces 30 and 31, but it is preferred that the assembly be so mounted and for this purpose it is obvious that the assembly, when in use, is made to fit the particular transom to which the boat is being mounted by the simple expedient of shimming beneath the head 19 or between the leg 14 and the transom 11 with any suitable material. In this connection, it is pointed out that the usual practice is to provide some sort of protector sheath such as that indicated by the reference character 32 in Figure 1 so as to prevent direct engagement between the mounting clamp assembly and the transom, such transom being usually of wood or softer construction. In the event that the clamping assembly, when in operative position, presents a shank

portion 29 too long for the sleeve assembly 22, a shim would be necessary between the sheath 32 and the head 19 or on the opposite side of the transom, if desired.

The upper section 23 is provided with a circumferentially extending groove 34 substantially midway between the opposite ends thereof and into this groove 34 is fitted the bight portion 35 of a hasp 36 carried by the lock body 37 as shown most clearly in Figure 3. The lower section 24 is provided with diametrically opposed grooved portions 37 and 38 which are coextensive with the opposite ends of the groove 34 and are tangentially disposed with respect to the edges 27 and 28 respectively so as to permit the depending leg portions 39 and 40 of the hasp 36 to snugly engage the opposite sides of the lower section 24 as shown most clearly in Figure 3 for locked engagement within the body 37.

The lower section 24 is also provided with a longitudinally extending flat 41 disposed medially thereof on its outer surface substantially midway between the two legs 39 and 40 and which flat is adapted to cooperate with the upper surface 42 of the lock body 37 between the hasp legs 39 and 40 and in engagement therewith such that the two sections of the sleeve are held in proper relationship with each other and in enclosing relationship with the shank portion 29 of the mounting bolt. If desired, the hasp bight 35 may be welded or otherwise rigidly secured to the upper sleeve section 23 as is indicated by the reference character 44 such that the lock hasp and the upper sleeve section form an integral unit for ease of manipulation.

From the above, it will be readily appreciated that the hasp, even though not rigidly attached to the upper section, may not be worked along the sleeve assembly by virtue of the disposition of its hasp within the grooves 34, 37 and 38. Thus, an effective but simple lock is provided to prevent unauthorized removal of the outboard motor and to prevent loosening of the mounting assembly as the motor vibrates during operation.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. In combination with an outboard motor having a mounting clamp, a locking assembly for preventing unauthorized removal of the motor when in a mounted position, said clamp including a generally U-shaped frame having a pair of depending legs for straddling the transom of a boat, a clamping bolt threadedly carried by one of said legs extending toward the other leg with a head thereon for engagement with the transom, said locking assembly including a sleeve completely surrounding and enclosing the inner end of said bolt between said one leg and said head and preventing withdrawal of the bolt and access thereto for cutting with a tool between said one leg and said head and a lock having its hasp

disposed about said sleeve and holding the same in place about said bolt, said sleeve being longitudinally split into engaging half sections for positioning of said sleeve in surrounding relation to the bolt, one of said sections having a flat thereon against which the lock fits to prevent said lock from turning about said sleeve.

2. In combination with an outboard motor having a mounting clamp including a generally U-shaped frame having a pair of depending legs for straddling the transom of a boat and a clamping bolt threadedly carried by one of said legs extending towards the other leg with an enlarged head thereon for engagement with the transom, a locking assembly for preventing unauthorized removal of the motor when in mounted position including a pair of sleeve halves completely surrounding and enclosing the inner end of said bolt between said one leg and said head and preventing withdrawal of the bolt and access thereto for cutting with a cutting tool between said one leg and said head, a lock having a body and a U-shaped hasp, said hasp disposed about said sleeve halves holding the same in place about said bolt, one of said halves having a flat on its midportion engageable by the lock body to prevent said lock from turning about said sleeve and a pair of grooves formed in the opposite side portions of one of said halves receiving the legs of said hasp and preventing longitudinal movement of the hasp on said one half, said other half having a circumferentially extending groove receiving the bight portion of said hasp and preventing longitudinal movement of said half longitudinally of said other half.

3. In combination with an outboard motor having a mounting clamp including a generally U-shaped frame having a pair of depending legs for straddling the transom of a boat and a clamping bolt threadedly carried by one of said legs extending toward the other leg with an enlarged head thereon for engagement with the transom, a locking assembly for preventing unauthorized removal of the motor when in mounted position including a pair of sleeve halves completely surrounding and enclosing the inner end of said bolt between said one leg and said head and preventing withdrawal of the bolt and access thereto for cutting with a cutting tool between said one leg and said head, and a lock having a body and a U-shaped hasp, said hasp disposed about said sleeve halves holding the same in place about said bolt, each of said halves having means thereon removably engaging said hasp for restricting longitudinal movement of the latter relative to said sleeve halves.

4. The combination of claim 3 including means on one of said halves engaging said body for restricting rotation of said lock relative to said sleeve.

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