June 11, 1963 R. L. LIPPINCOTT 3,093,106

FLUSH MOUNTED CLEAT

Filed May 9, 1962

FIG. 1

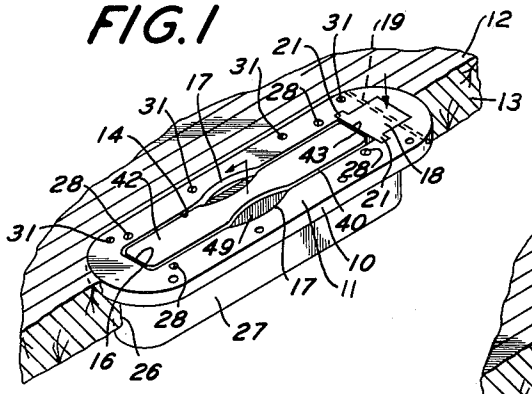


FIG. 2

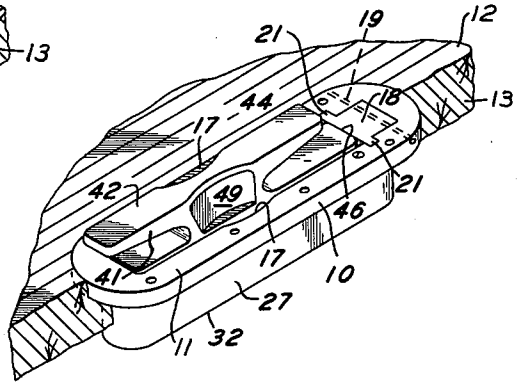


FIG. 3

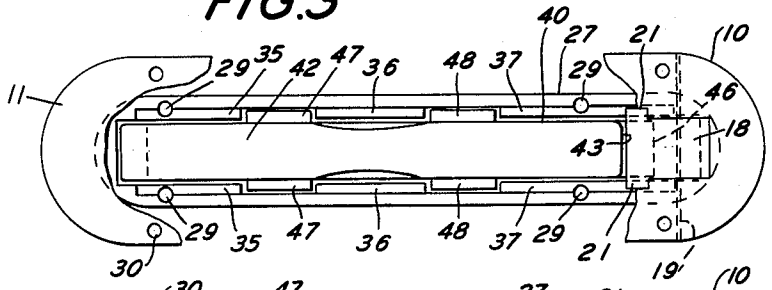


FIG. 4

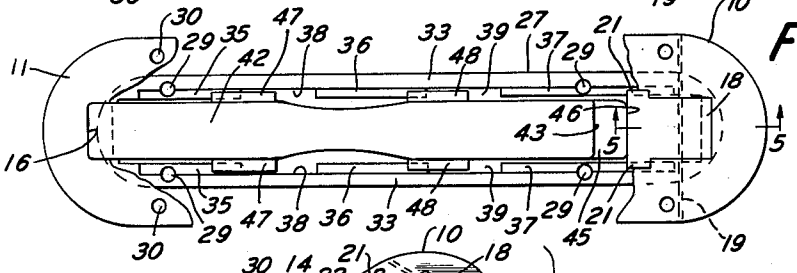


FIG. 5

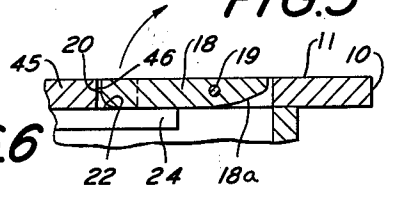
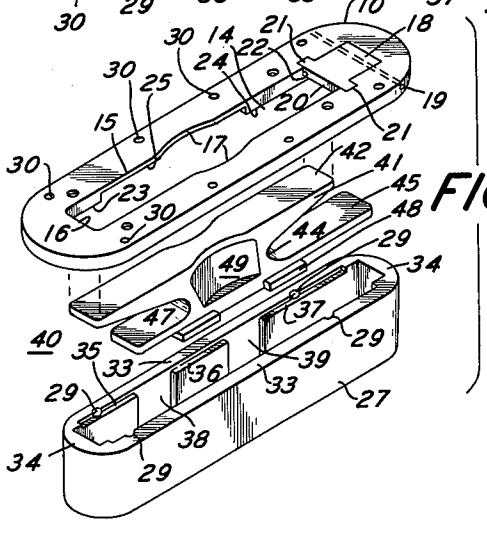


FIG. 6



INVENTOR.
ROBERT L. LIPPINCOTT
BY
B. T. Wobensmith 2nd
ATTORNEY

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FLUSH MOUNTED CLEAT

Robert L. Lippincott, 901 Thomas Ave., Riverton, N.J.

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9 Claims. (Cl. 114—218)

This invention relates to flush mounted cleats and more particularly to a cleat for fastening ropes, cables and the like on boats.

The cleats presently available for boats are fixedly mounted and frequently are at locations where there is a tendency to trip over the same. It has heretofore been proposed to provide collapsible cleats or mountings for cleats. These have not proven satisfactory.

It is the principal object of the present invention to provide a cleat body which is flush mounted on the deck or hull of a boat, which can be quickly and easily moved to a position for use, and which can, if desired, be returned to flush mounted position.

It is a further object of the present invention to provide a cleat for boats and the like which is simple yet sturdy in construction and which can be made of corrosion resistant materials.

It is a further object of the present invention to provide a cleat for boats and the like of the character aforesaid which is made of a relatively small number of parts and which requires a minimum of machining for its completion.

It is a further object of the present invention to provide a cleat body for movement with respect to a housing from a flush mounted to an operating position, and in which the movable portion of the cleat substantially closes the opening in the housing in either position.

It is a further object of the present invention to provide a cleat body for movement with respect to a mounting housing in which a self seating pivotally mounted locking plate is employed which is normally flush with the outer face of the mounting housing and of the outer face of the cleat body in the flush condition of the cleat body.

Other objects and advantageous features of the invention will be apparent from the description and claims.

The nature and characteristic features of the invention will be more readily understood from the following description taken in connection with the accompanying drawings forming part thereof, in which:

FIGURE 1 is a view in perspective of a cleat in accordance with the invention in its flush mounted or out of use position;

FIG. 2 is a view in perspective of the cleat of FIG. 1 in its elevated position for use;

FIG. 3 is a top plan view with the cleat body in lowered or flush mounted position with part of the mounting plate broken away to show the details of construction of the housing and cleat body;

FIG. 4 is a view similar to FIG. 3 with the cleat body in its elevated position for use;

FIG. 5 is a fragmentary vertical sectional view, enlarged, taken approximately on the line 5—5 of FIG. 4; and

FIG. 6 is an exploded perspective view of the cleat in accordance with the invention.

It should, of course, be understood that the description and drawings herein are illustrative merely, and that various modifications and changes can be made in the structure disclosed without departing from the spirit of the invention.

Like numerals refer to like parts throughout the several views.

Referring now more particularly to the drawings, in which a preferred embodiment of the invention is shown, an elongated flush mounting face plate **10** is provided

having an upper face **11** which is adapted to be mounted flush with the outer surface **12** of the deck **13** or the like on which the cleat is used.

The face plate **10** has an elongaed opening **14** with side margins **15**, and an end margin **16**. The side margins **15** have opposite outwardly curved and beveled portions **17** for access by the fingers of the user. At the end opposite the end margin **16** a locking plate **18** is provided pivotally mounted on a pivot pin **19**. The locking plate **18** has an end face **20** and has sidewise extending wings **21** which seat in sockets **22** in the plate **10**. The plate **18** at one end can be beveled as at **18***a*. The plate **18** has the center of gravity thereof offset from the pivot pin **19** towards the wings **21** so that the plate **18** is normally urged to flat horizontal condition with the wings **21** seated in the sockets **22** unless displaced as hereinafter pointed out.

The face plate **10**, on the underside thereof, has downwardly extending ribs **23** and **24** with opposite grooves **25** extending therebetween.

The deck **13** has an opening **26** for the reception of a cleat housing **27** which is secured to the plate **10** by screws **28** which extend into threaded holes **29** in the housing **27**. Openings **30** in the plate **10** have screws **31** therein to hold the plate **10** in place on the deck **13**.

The cleat housing **27** is in the form of a box open at the top with a bottom wall **32**, opposite parallel side walls **33** and curved end walls **34** connecting the side walls **33**.

The upper parts of the side walls **33** have grooves providing aligned shelves **35**, **36** and **37** with opposite vertical slots **38** and **39** therebetween. The shelves **37** serve for engagement by the ribs **23** while the shelves **35** at the outer end portions thereof are engaged by the ribs **23**.

The cleat body **40** has a top plate **41** which in the lowered condition has the top face **42** thereof flush with the plate **10**. The top plate **41** has a locking end face **43** and is of increasing thickness toward the center. The plate **41** has a vertical central section **44** integral therewith with a lower guide plate **45** parallel to the top plate **41** and received between the side walls **33**. The guide plate **45** has a locking end face **46**.

The guide plate **45** has extending transversely therebelow opposite pairs of cleat feet **47** and **48** which are received respectively in the slots **38** and **39** respectively when the cleat body **40** is lowered. The cleat feet **47** and **48** in the elevated portion of the cleat body **40** rest respectively on the shelves **35** and **36**.

The top plate **41** and the central section **44** have curved and undercut gripping faces **49** on each side accessible for gripping at the curved and beveled portions **17**.

The mode of operation will now be pointed out.

In the downwardly disposed or flush mounted condition of the cleat body **40**, the cleat feet **47** and **48** are at the lower ends of the slots **38** and **39**. The top face **42** of the top plate **41** of the cleat body **40** is flush with the upper face **11** of the face plate **10**. The locking plate **18** is in flat condition with its locking end face **20** in engagement with the locking end face **43** of the top plate **41**. The cleat body **40** will remain in its lowered position, aided by the weight of the cleat body **40**.

If now it is desired to raise the cleat body **40** to its position for use the operator inserts the thumb on one side and one finger on the other side at the beveled portions **17** and grasps the gripping faces **49**.

The cleat body **40** is now raised, guided by the cleat feet **47** and **48** in the slots **38** and **39** and the cleat feet are brought into the grooves **25**. The locking plate **18** is tilted by the lower guide plate **45** coming into contact therewith.

The cleat body **40** is then moved horizontally with the cleat feet **47** and **48** supported on the shelves **35** and **36**

until the locking end face **46** just clears the locking end face **20** of the locking plate **18** which drops to its flat position with the wings **21** engaged in the sockets **22**. At the same time the opposite end of the lower guide plate **45** abuts against the ends of the grooves **25**.

The cleat body **40** is thus locked and held in its upper position ready for use.

If at any time it is desired to lower the cleat body **40** the locking plate **18** is manually tilted to move the end face **20** thereof out of engagement with the end face **43**. The cleat body **40** can then be moved by a reversal of the operations previously described so that the cleat feet **47** and **48** can be lowered in the slots **38** and **39** and the cleat body **40** lowered to the position first described. The face **42** will then be flush with the face **11** so that no obstruction is provided by the cleat body **40**.

I claim:

1. A cleat comprising a housing, a face plate from which said housing extends having an outer face, a cleat body having an inner position with respect to said housing for storage and an outer position for use offset sidewise with respect to said inner position, said cleat body having an outer elongated portion and an inner elongated portion with a central connecting section therebetween, said inner portion of said cleat body having sidewise projecting cleat feet, said housing having aligned shelf portions for the reception of said cleat feet in its outer position and slots for reception of said cleat feet at its inner position, said slots being offset sidewise from said shelf portions, and a member at said face plate and engageable with a portion of said cleat body for releasably locking said cleat body in its outer position with said cleat feet on said shelf portions.

2. A cleat as defined in claim 1 in which said cleat body has a portion engageable by said last member for releasably engaging a portion of said cleat body in its inner position.

3. A cleat as defined in claim 1 in which said last member is a pivotally mounted plate.

4. A cleat as defined in claim 1 in which said last member is a plate having a pivotal mounting and said plate has the center of gravity to one side of the pivotal axis urging said plate to flat position.

5. A cleat as defined in claim 1 in which said housing has side walls with said shelf portions formed thereon and said slots are between said shelf portions and normal thereto.

6. A cleat comprising a housing having side walls with interior horizontal shelves therealong and vertical interior slots intersecting said shelves, a face plate detachably secured to said housing, a cleat body having an inner position with respect to said housing for storage and an outer position for use, said cleat body having an outer elongated portion with an end face and an inner elongated portion with a central connecting section therebetween, said inner portion having an end face, said inner portion having sidewise projecting cleat feet for engagement with said shelves at the outer position of said cleat body and for movement along said slots to and from the outer position thereof, a locking plate pivotally mounted on said face plate and having an end face for respective engagement with said end faces of said cleat body in inner and outer positions of said cleat body.

7. A cleat comprising a housing, a face plate from which said housing extends having an outer face, a cleat body having an inner position with respect to said housing for storage and an outer position for use, said cleat body having an outer elongated portion and an inner elongated portion with a central connecting section therebetween, said inner portion of said cleat body having sidewise projecting cleat feet, said housing having aligned shelf portions for the reception of said cleat feet in its outer position and slots for reception of said cleat feet at its inner position and a member accessible at said face plate and engageable with a portion of said cleat body for releasably locking said cleat body in its outer position, said face plate being detachably secured to said housing and said last member being pivotally carried on said face plate.

8. A cleat comprising a housing, a face plate from which said housing extends having an outer face, a cleat body having an inner position with respect to said housing for storage and an outer position for use, said cleat body having an outer elongated portion and an inner elongated portion with a central connecting section therebetween, said inner portion of said cleat body having sidewise projecting cleat feet, said housing having aligned shelf portions for the reception of said cleat feet in its outer position and slots for reception of said cleat feet at its inner position and a member accessible at said face plate and engageable with a portion of said cleat body for releasably locking said cleat body in its outer position, said face plate and said housing having grooves therebetween for slidable movement of said feet from positions engaging said shelves to positions for movement into said slots.

9. A cleat comprising a housing, a face plate from which said housing extends having an outer face, a cleat body having an inner position with respect to said housing for storage and an outer position for use, said cleat body having an outer elongated portion and an inner elongated portion with a central connecting section therebetween, said inner portion of said cleat body having sidewise projecting cleat feet, said housing having aligned shelf portions for the reception of said cleat feet in its outer position and slots for reception of said cleat feet at its inner position and a member accessible at said face plate and engageable with a portion of said cleat body for releasably locking said cleat body in its outer position, said face plate and said housing having grooves therebetween bounded in part by said shelves for slidable movement of said feet, and said slots intersecting said grooves for movement of said feet out of said grooves to their inner positions.

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