June 13, 1961 F. H. WOLFF 2,987,736

OARLOCK

Filed March 23, 1959

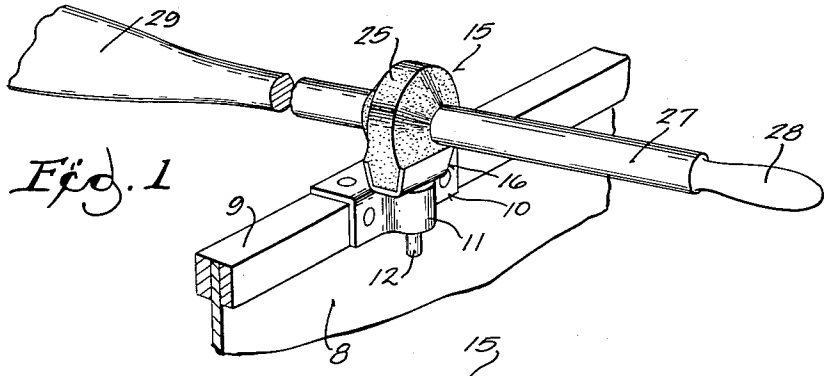

Fig. 1

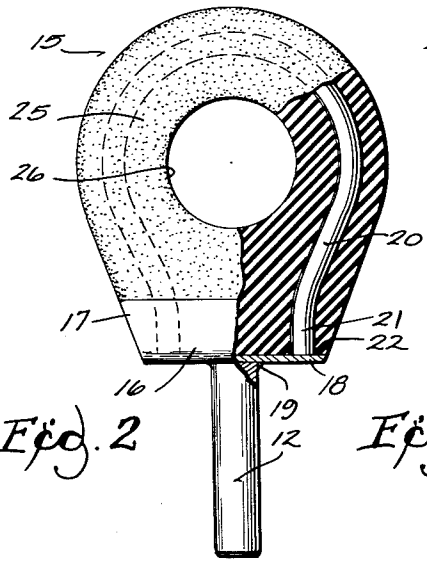

Fig. 2

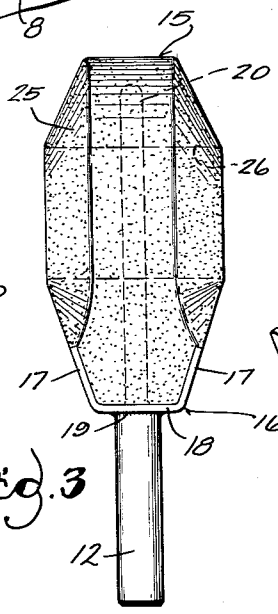

Fig. 3

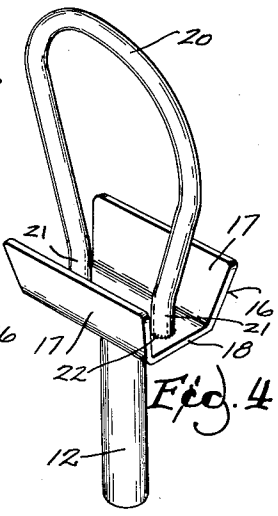

Fig. 4

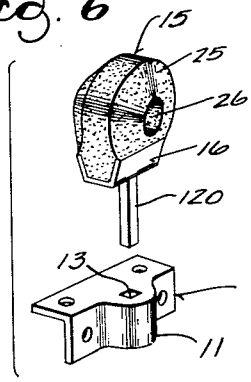

Fig. 6

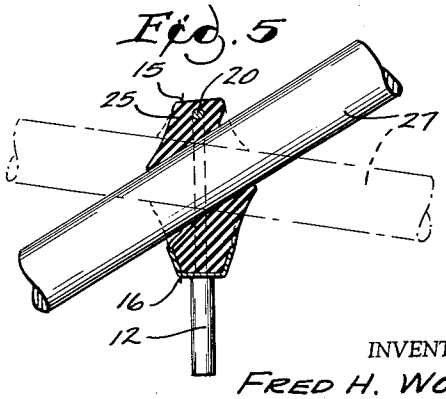

Fig. 5

INVENTOR.
FRED H. WOLFF

BY

Wheeler, Wheeler & Wheeler
ATTORNEYS

United States Patent Office 2,987,736 Patented June 13, 1961

2,987,736

OARLOCK

Fred H. Wolff, R.R. 1, Arbor Vitae, Wis.

Filed Mar. 23, 1959, Ser. No. 801,242
8 Claims. (Cl. 9—26)

This invention relates to an oarlock.

A metal frame provided with a mounting pin has molded about it an elastomeric body, desirably made of natural or synthetic rubber, or elastic plastic, providing an opening through the frame of such dimensions that an oar can be pushed through the body to have any desired relationship to the oarlock. The size of the opening should be materially smaller than the cross section of the oar so that the body will be deformed by the oar and will exert considerable compressive bias on the oar to maintain the oar in position.

The oar is universally movable with respect to the oarlock to accommodate all movements of the oar required for boat propulsion. Consequently, it is not even necessary that the oarlock swivel in its mounting. Desirably, however, the pin of the oarlock can readily be withdrawn from the mounting when it is desired to ship the oar.

The metal frame desirably includes a base channel into which the lower part of the elastomeric body is received and by which the elastomeric body is protected from destructive abrasion. In the preferred construction herein illustrated, the pin is welded to the bottom of this channel and the yoke-shaped bar has its ends welded centrally within the channel, the bar being wholly concealed when the elastomeric annular body is molded about the bar within the channel.

In the drawings:

FIG. 1 is a fragmentary detail view in perspective showing the gunwale of a boat equipped with an oarlock embodying the invention.

FIG. 2 is an enlarged detail view of the oarlock in side elevation, the elastomeric body being broken away to a section exposing the interior yoke.

FIG. 3 is a view of an oarlock in side elevation.

FIG. 4 is a view in perspective showing the metal frame including the yoke, the channel and the pin as prepared in readiness for molding the elastomeric body thereon.

FIG. 5 is a detail view in cross section through an oarlock embodying the invention, a fragment of an oar being illustrated therein in different positions to which it may be manipulated as accommodated by the elasticity of the body which fixes the relative positions of the oarlock and the oar.

FIG. 6 is a detail view on a reduced scale showing a modified embodiment of the invention using a pin of square cross section and a socket fitting similarly contoured.

The side of a boat is shown at **8** in FIG. 1. Fastened in any appropriate manner to its gunwale **9** is a socket fitting **10**. This may be of any appropriate type. It has a boss **11** socketed to receive the pin or stem **12** of the oarlock. If desired, the opening in the boss **11** may be polygonal in cross section as shown at **13** in FIG. 6, in which case, the stem **120** will have a complementary polygonal cross section.

The oarlock indicated by reference character **15** comprises a metal frame which includes a channel **16** with flaring sides **17** and a generally horizontal web **18** to which the stem **12** is welded at **19** (FIG. 2). The yoke **20** has its ends disposed within the channel **16**, each end **21** desirably being welded centrally to the surface of the web **18** in the channel as indicated at **22** in FIG. 2. The portion of the yoke above the ends **21** desirably has

a generally circular outline as clearly indicated in FIGS. 2 and 4.

The elastomeric body **25** has the yoke **20** embedded within it and the lower margin of such body is embraced within the channel **16** between the flaring side walls **17** thereof. Except as the elastomeric body **25** extends down into the channel, said body is of generally annular form, having a central opening at **26** adapted to receive the oar **27**. The body **25** is exposed at all its surfaces except for the lower peripheral portions which are embraced by the channel **16**. Desirably, the opening **26** is slightly smaller in cross section than the oar so that pressure of the elastomeric body will retain the oar in any position of axial adjustment to which it is forced through the body. By exerting sufficient pressure in a direction longitudinally of the oar shaft, the oar can be pushed through the elastomeric body to a position in which it is frictionally held against further longitudinal translative movement, whereby the handle end portion **28** of the oar will be positioned to project to any desired extent convenient for the oarsman, leaving the blade **29** projecting oppositely as shown in FIG. 1.

All of the up and down movement of the oar is readily accommodated by the deformation of the elastomeric body **25** as shown in FIG. 5. Ordinarily, if the oar has a cylindrical pin **12** as shown in FIGS. 1 to 4, the oscillatory movement of the oar will be accommodated by the rotation of the pin in the fitting **10**. However, the elastomeric body actually accommodates universal movement of the oar. Hence it is possible to eliminate the squeaking caused by unlubricated oarlocks, by simply providing a pin and socket of polygonal cross section as shown in FIG. 6, relying upon the deformation of the elastomeric body **25** to accommodate horizontal oscillation as well as vertical oscillation of the oar.

In addition to its quietness of operation and ease of axial oar adjustment, there is advantage in the disclosed use of the rubber body in that there are no metallic edges exposed and hence the user is protected against skin lacerations, bruises, or clothing damage such as may be occasioned by sudden movements or loss of balance in a boat equipped with conventional oarlocks.

The channel **16** which forms a part of the metal frame about which the elastomeric body is molded is valuable in protecting the elastomeric body from rubbing contact with the fitting **10** or the gunwale during use of the oarlock.

It will be understood by those skilled in the art that while the yoke bar is greatly preferred as a means of imparting strength to the oarlock and transmitting the thrust of the oars to the boat, it is unnecessary to have this yoke if the elastomeric body which positions the oar is tightly bonded on the upper end of the pin **12** within the channel, as by molding within the channel, or otherwise.

I claim:

1. The combination with an oarlock pin, of an annular elastomeric body having means fixedly mounting it on said pin, said body being provided with an opening slightly smaller in cross section than the shaft of an oar to be mounted therein, said body being adapted to engage such a shaft with compressive bias to maintain fixedly the translative position of the oar respecting the oarlock, deformation of said body accommodating all required movement of the oar with respect to the pin during rowing.

2. An oarlock comprising a metal frame having a pin portion, a transverse channel portion provided with side flanges and a connected web to which the pin portion is connected, and a yoke having a central opening and having ends fixed to the web portion of the channel against expansion whereby the yoke provides an opening above the channel, and an elastomeric body molded within the channel and having peripheral portions exposed

about the yoke and provided with an opening extending through the yoke and of such dimensions with regard to the shaft of an oar as to engage such shaft securely to position the oar with respect to the oarlock while elastically accommodating relative movement between the oar and the oarlock.

3. For an oar having a shaft, an oarlock comprising a pin, an elastomeric body having an opening slightly smaller than the oar shaft, said body being yieldably adapted to receive the oar shaft and frictionally to determine the axial position of the oar shaft in said opening, and means for mounting said body fixedly to the pin, the body being elastically deformable to accommodate universal oar movement respecting the pin.

4. For an oar having a shaft, an oarlock comprising a pin, an elastomeric body having an opening slightly smaller than the oar shaft, said body being yieldably adapted to receive and frictionally to position the oar shaft in said opening, and means for mounting said body fixedly to the pin, the body being elastically deformable to accommodate universal oar movement respecting the pin, and a yoke extending about the opening in said body and having its ends connected to said means, portions of the body intervening between the yoke and the opening.

5. For an oar having a shaft, an oarlock comprising a pin, an elastomeric body having an opening slightly smaller than the oar shaft, said body being yieldably adapted to receive and frictionally to position the oar shaft in said opening, and means for mounting said body fixedly to the pin, the body being elastically deformable to accommodate universal oar movement respecting the pin, and a yoke extending about the opening in said body and having its ends connected to said means, portions of the body intervening between the yoke and the opening, the yoke being imbedded in said body, and elastically deformable portions of the body being exposed at all points about the yoke.

6. For an oar having a shaft, an oarlock comprising a pin, an elastomeric body having an opening slightly

smaller than the oar shaft, said body being yieldably adapted to receive and frictionally to position the oar shaft in said opening, and means for mounting said body fixedly to the pin, the body being elastically deformable to accommodate universal oar movement respecting the pin, and a yoke extending about the opening in said body and having its ends connected to said means, portions of the body intervening the yoke and the opening, said means comprising a channel having a central web fixed in the pin and to which the ends of the yoke are attached.

7. The combination with an oar having a shaft, of an oarlock comprising a metal mounting and an elastomeric body fixed to said mounting and having an opening initially smaller than the oar shaft and through which the oar shaft extends, said body being in an elastically expanded condition and contractile upon the oar shaft and said oar shaft being axially adjustable through the body and frictionally fixed in position by contraction of the body thereon, the body being deformable to accommodate universal movement of the oar respecting said mounting.

8. The combination set forth in claim 7 in which said mounting comprises a channel having an oarlock pin projecting therefrom, one side of the body being disposed within the channel and all other surfaces of the body being exposed.

References Cited in the file of this patent

UNITED STATES PATENTS

1,196,962	McDermott	Sept. 5, 1916
1,921,028	Glascock	Aug. 8, 1933
2,047,976	Lord	July 21, 1936
2,297,619	Haberstump	Sept. 29, 1942
2,602,172	Messman	July 8, 1952
2,657,401	Goserud	Nov. 3, 1953
2,665,146	Berg	Jan. 5, 1954
2,784,575	Jencick	Mar. 12, 1957
2,908,457	Loftis	Oct. 13, 1959
2,930,211	Guy	Mar. 29, 1960

UNITED STATES PATENT OFFICE

CERTIFICATE OF CORRECTION

June 13, 1961

Patent No. 2,987,736

Fred H. Wolff

It is hereby certified that error appears in the above numbered patent requiring correction and that the said Letters Patent should read as corrected below.

Column 4, line 8, after "intervening" insert -- between --.

Signed and sealed this 31st day of October 1961.

(SEAL)

Attest:

ERNEST W. SWIDER
Attesting Officer

DAVID L. LADD
Commissioner of Patents

USCOMM-DC