May 10, 1938. J. L. MUSANTE 2,117,069

COMBINED OAR AND OARLOCK

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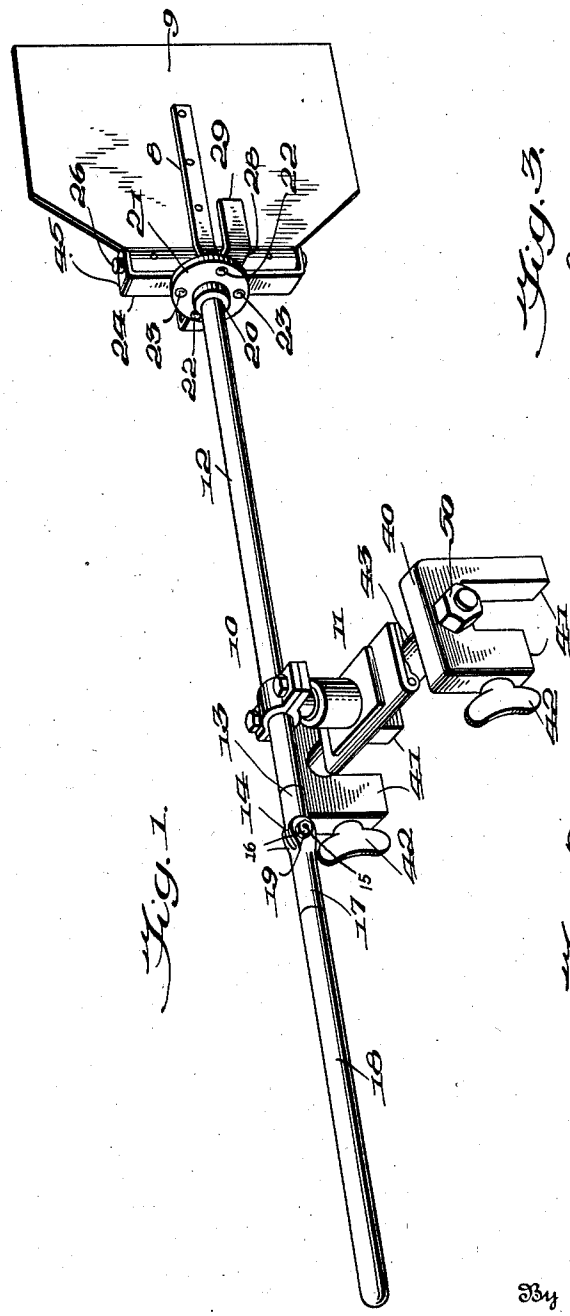


Fig. 1.

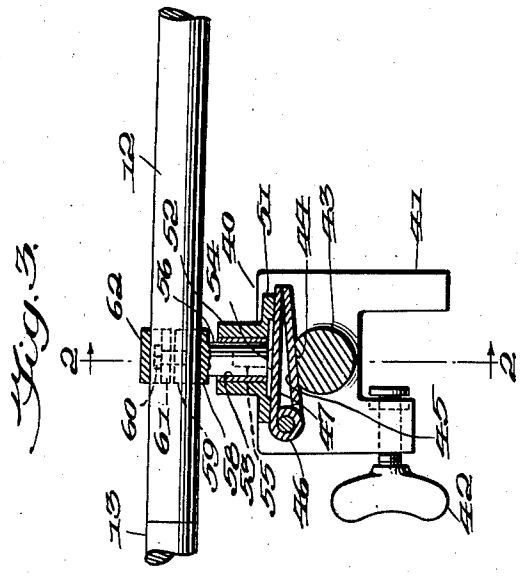


Fig. 3.

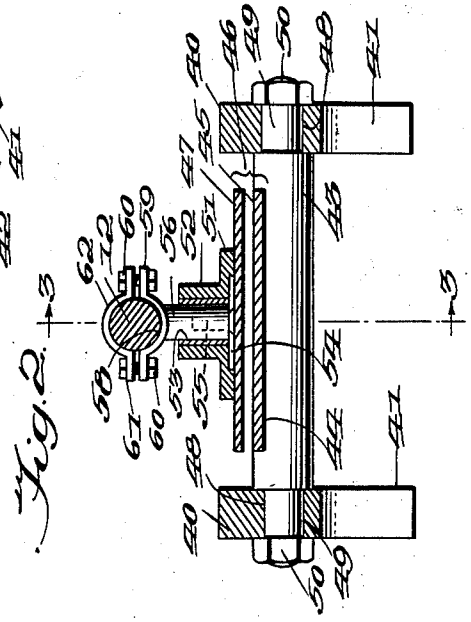


Fig. 2.

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Fig. 4.

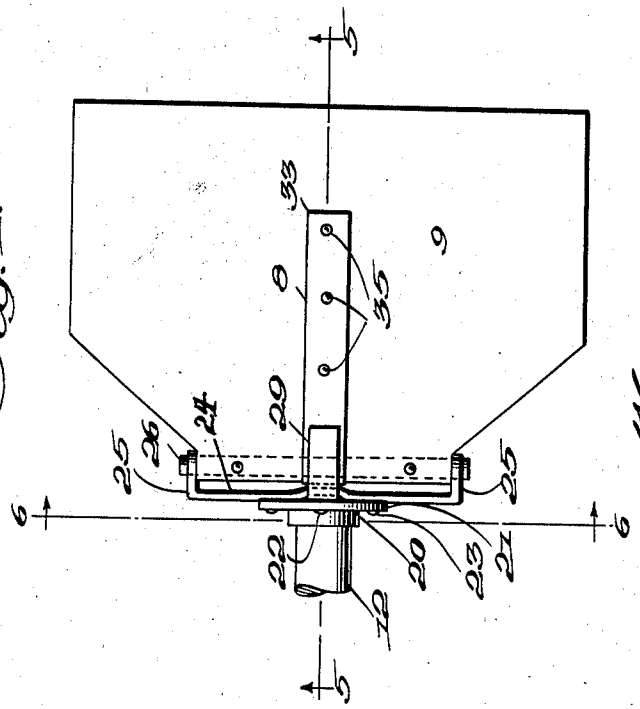


Fig. 5.

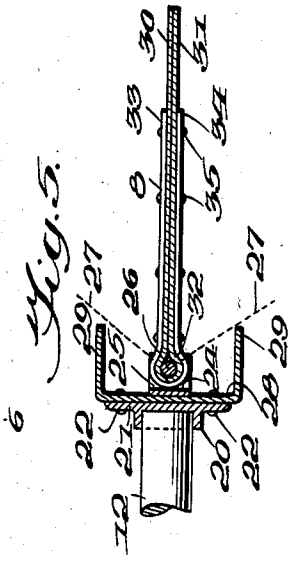


Fig. 6.

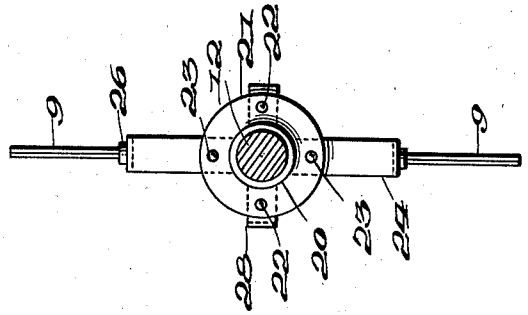
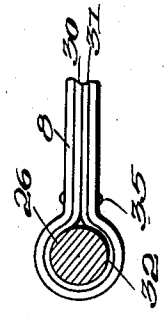


Fig. 7.



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COMBINED OAR AND OARLOCK

John L. Musante, Falmouth, Va.

Application May 20, 1937, Serial No. 143,811

2 Claims. (Cl. 9—24)

My invention relates to a combined oar lock and oar and while obviously adaptable for use in rowing, relates more particularly to a combination for use in sculling.

An object of my invention is to provide a novel combined oar and oar lock.

A further object is to provide an improved and novel oar.

A further object is to provide an improved and novel oar lock.

A further object is to provide an oar lock embodying novel means for adjusting the length of the oar, the angle at which it enters the water and the angle of the oar handle.

A further object is to provide a novel sectional oar.

A further object is to provide a novel blade for an oar.

Other objects and advantages reside in the particular structure of my invention, a combination and arrangement of the several parts and in the particular mode of operation all of which will be readily apparent to those skilled in the art upon reference to the drawings in connection with the following detailed description.

In the drawings wherein like reference characters refer to like parts throughout:—

Figure 1 is a perspective view of my improved oar and oar lock;

Figure 2 is a longitudinal vertical section through the lock taken on a plane corresponding substantially to that indicated by the line 2—2 of Figure 3;

Figure 3 is a transverse vertical section through the lock taken on a plane corresponding substantially to that indicated by the line 3—3 of Figure 3;

Figure 4 is an elevation of the blade of the oar;

Figure 5 is a longitudinal horizontal section through the oar blade taken substantially on the line 5—5 of Figure 4;

Figure 6 is a transverse vertical section taken on the line 6—6 of Figure 4; and

Figure 7 is an enlarged detail of a portion of Fig. 5.

Referring more particularly to the drawings, 10 indicates generally an oar and 11 an oar lock therefor. The oar 10 comprises a central body portion 12 having one end adapted to be removably seated in a socket 13 formed on an ear 14. The ear 14 is apertured to receive a bolt 15 which connects said ear to a pair of similar ears 16 having a socket member 17 formed thereon. One end of a handle portion 18 is adapted to be seated in said socket 17. By loosening the nut 19 of the bolt 15 the handle 18 can be swung through a vertical arc to any desired vertical angle with respect to the body portion 12 of the oar. Tightening of the nut 19 secures the handle 18 in any selected position or vertical angle with respect to the body 12 of the oar.

The other end of the body 12 is suitably secured to the blade 9 by being secured in any suitable manner in a socket 20. The socket 20 has a base flange 21 suitably apertured to receive rivets or bolts 22, 23. The rivets or bolts 23 attach the socket 20 to a strip 24 having end portions 25 thereof turned at right angles thereto in parallel relationship. The end portions 25 are formed to provide aligned apertures therein which receive a bolt or rivet 26 upon which the blade 9 is swingably mounted. The bolts or rivets 22 of the flange 21 are attached to a strip 28 which crosses the strip 24 at right angles thereto. End portions 29 of the strip 28 are bent at right angles thereto in substantially parallel relationship to each other. As indicated by the dotted lines 27, Fig. 5, the end portions 29 serve as stops to limit the swinging movement of the blade 9.

The blade 9 comprises a substantially "fish-tail" shaped member. The blade 9 may be formed of a single sheet of suitable material which is folded upon itself to form a pair of abutting plates 30 and 31. The folded edges of said plates 30 and 31 may be enlarged and swaged to provide a bearing 32 to receive the bolt or rivet 26. A reinforcement 8 may be applied to the blade 9, if desired, and may comprise a strip having its end portions 33, 34 folded around the bearing 32. Rivets or bolts 35 secure the portions 31, 32 of the blade together and may also secure the ends 33, 34 of the strip 8 together.

From the foregoing, it is apparent that as the oar 10 is swung back and forth, the blade 9 will be swung to and fro by the resistance of the water. The swinging motion of the blade will, as aforesaid, be limited by the stops 29. This particular motion is in the nature of that exerted by the tail of a fish and serves to propel the boat when a single oar is used over the stern to scull the same.

In sculling, I have found that the maximum efficiency is attained when the blade enters the water at a certain angle which angle must be maintained to maintain the efficiency. That is, the oar should be swung back and forth in the same inclined plane constantly as variations in the angle of the plane detract from the efficiency

of the operation. To this end, I have provided means included in the oar lock 11 whereby the oar may be maintained at any desired angle with respect to the water throughout the sculling operation.

The oar lock 11 comprises at least one base 40 having depending legs 41 which are adapted to fit over the stern or gunwale of a boat. Suitable means such as the thumb screws 42 may be used to secure the lock to the boat. A member 43 is mounted on the base 40 for turning movement through a vertical arc. The ends of the member 43 are reduced as at 49 and are received in bearings 48 formed in the ends of the base 40. The extremities of the reduced ends 49 are threaded to receive bearing nuts 50. By loosening the nuts 50 the member 43 may be turned to any desired position and secured in such position by tightening the nuts. A recess 44 is formed on the member 43 and receives one plate 45 of a hinge member 46. Th recess 44 may be eliminated where a square or angular member 43 is utilized. The other plate 47 of the hinge 46 is suitably attached to a base flange 51 which has an upright socket member 52 formed thereon. A bushing 53 is formed in the socket 52 to provide a bearing for a pin 56 which is pivotally mounted therein. The lower end of the pin 56 is tapped to receive a bolt 55 which carries a washer 54 seated in a suitable recess in the bottom of the flange 51.

The upper end of the pin 56 has an oar receiving clamping member 58 formed thereon and which is flanged as at 59. The other clamping member 62 is of generally similar shape and has flanges 61 formed thereon. The members 58 and 62 are adjustably connected together by suitable bolts 60 which pass through suitable apertures in the flanges 59 and 61 thereof. It will be noted that the clamp for the oar resembles an automobile connecting rod bearing and it may be said that I have found that such a bearing makes an ideal clamp, it being only necessary to saw off the connecting rod and turn it down to form the pin 56.

From the foregoing, it is obvious that by turning the member 43 to a suitable position and there securing it, the angle of the oar 10 may be adjusted to the maximum efficiency and thereby maintained for an indefinite period. At the same time if it is desired to use the oar and lock upon another boat having higher sides or stern, it will be necessary to determine a different angle. Hence, the adjustability of the member 43 is of importance. The clamping members 58 and 62 provide means for varying the working length or leverage of the oar to suit the particular boat.

It will be noted also that the hinge 46 permits the oars to be raised clear of the water and swung into the boat without disturbing the angle of the member 43. Thus, the particular oar lock is not limited for use alone with a single sculling oar, but two or more may be provided to opposite gunwales of a boat for use with the usual oars in ordinary rowing.

While I have shown and described what is thought now to be the preferred form of oar angle adjustment, oar lock, oar and combination thereof, yet it is apparent that the same are susceptible of other embodiments and combinations. Therefore, it is to be understood that the foregoing disclosure is to be regarded as illustrative only and that it is not my intention to limit myself to the particular embodiments and combination shown except as hereinafter claimed.

I claim:

1. An oar lock for boats, comprising a pair of spaced base members, said members including means for detachably connecting said base members to the gunwale of a boat, aligned bearings in said members, a shaft mounted for rotation in said bearings, the ends of said shaft being threaded and extending beyond said members, lock nuts on said ends of said shaft and bearing against said members to lock said shaft against rotation, an oar-engaging member pivotally mounted on said shaft intermediate said members, to permit the working movement of an oar, and said lock nuts and shaft comprising means for positioning and maintaining said oar engaging member at any selected vertical angle with respect to said base.

2. An oar lock for boats, comprising a pair of spaced base members, said members including means for detachably connecting said base members to the gunwale of a boat, aligned bearings in said members, an intermediate member mounted between said members, end portions of said intermediate member being reduced to fit in said bearings to permit rotation of said intermediate member, the ends of said reduced portions being threaded and extended outwardly of said members, lock nuts on said threaded portions and bearing against said members to lock said intermediate member against rotation, an oar-engaging member pivotally mounted on said intermediate member to permit the working movements of an oar, and said lock nuts and intermediate member comprising means for maintaining said oar-engaging member at any selected vertical angle with respect to said base.

JOHN L. MUSANTE.