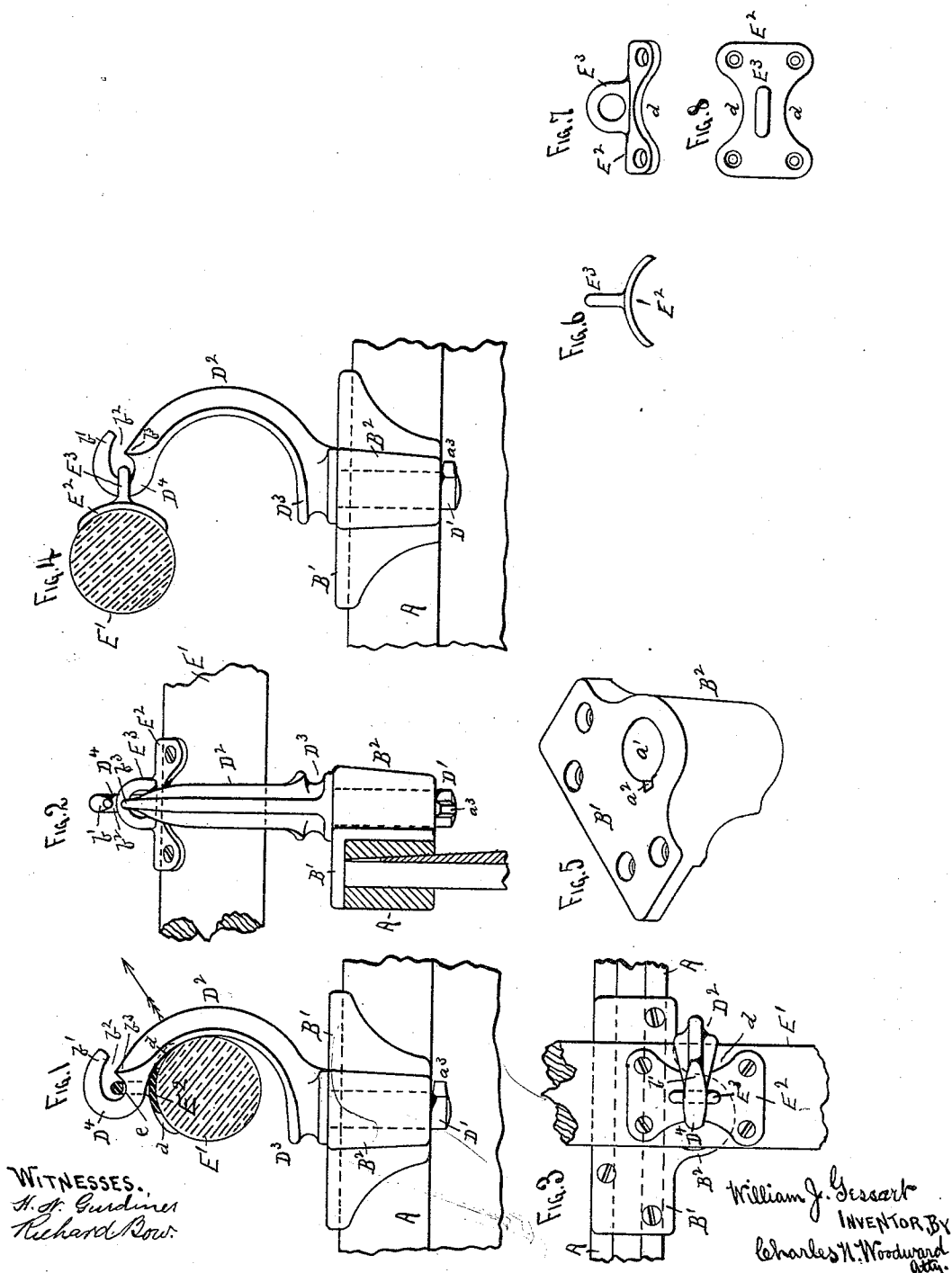


(No Model.)

W. J. GESSART.
OAR LOCK FOR SELF FEATHERING OARS.

No. 499,727.

Patented June 20, 1893.



UNITED STATES PATENT OFFICE.

WILLIAM J. GESSART, OF ST. PAUL, MINNESOTA.

OAR-LOCK FOR SELF-FEATHERING OARS.

SPECIFICATION forming part of Letters Patent No. 499,727, dated June 20, 1893.

Application filed April 29, 1892. Serial No. 431,109. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. GESSART, a citizen of the United States, residing at St. Paul, in the county of Ramsey and State of Minnesota, have invented certain new and useful Improvements in Oar-Locks for Self-Feathering Oars, of which the following is a specification.

This invention relates to oarlocks, and consists in the construction and arrangement of parts as hereinafter shown and described, and specifically pointed out in the claims.

In the drawings,—Figure 1 is a side view of one of my improved oar locks and a portion of the shank of an oar connected to a section of a gunwale of a boat. Fig. 2 is a front view, and Fig. 3 is a plan view, of the same, these views showing the position of the shank of the oar while the stroke is being made. Fig. 4 is a view similar to Fig. 1, showing the position of the shank of the oar during the return stroke, or when "feathering." Fig. 5 is a detached perspective view of the oar lock socket. Figs. 6, 7, and 8 are detached detail views of the eyelet cap detached from the oar shank.

A represents a portion of the gunwale of a boat of the ordinary construction, and with an oar lock socket attached thereto, as shown. This socket consists of a right angled plate B' with the socket proper B² on one side, the latter having the perpendicular hole a' for the reception of the pin D' of the oar lock, the pin being longer than the socket, as shown. The hole a' in the socket B² is provided with a key way or slot a² through which a "fin" or lug a³ on the pin D' passes when the pin is inserted, the lug passing below the lower end of the socket so as to enable the pin D' to be freely turned in the socket, but which cannot be removed therefrom unless the lug a³ "registers" with the slot a².

The oar lock proper consists of a curved arm D² formed in one piece with the pin D' and with an enlargement D³ at the point of their union, to increase the strength and durability, and form a bearing for the arm upon the socket. The upper end of the arm D³ curves backward nearly to a point in line with the center line of the pin D', and ends in a hook D⁴ which is curved backward over

the body portion of the arm at b' and is bent slightly downward to contract the entrance or throat b² of the hook, as shown. The upper end of the arm D², just at the point where the hook D⁴ commences, is provided with a point b³ which acts as a back wall or abutment to the hook, and also, together with the downwardly curved end b' of the hook D⁴, forms the lower part of the contracted throat or entrance b² to the hook.

Fastened by screws or otherwise to the shank E' of the oar is a plate E² formed with contracted central portion d and with an eye E³ adapted to fit into the hook D⁴, as shown. The interior area of the hook is larger than the throat or entrance b², and the interior area of the eye E³ is larger than the diameter of the shank of the hook, while the diameter of the eye is just sufficient to enable it to pass through the throat b². These peculiar dimensions and forms are important factors in this invention, as I shall proceed to describe.

When the oar is to be connected to the oar lock it is turned upside down to bring the eye E³ downward, and the latter is then passed into the hook D⁴ through the throat b², and the oar turned over until its shank assumes the position shown in Fig. 1. Then when the stroke takes place the shank is drawn backward against the arm D², the contracted central portion d of the plate E' permitting the wooden body of the shank itself to come in direct contact with the metal of the arm D² and avoiding the contact of metal upon metal at these points, which is an objectionable feature. In the act of drawing the shank E' against the arm D² in making the stroke, the strain is both backward and upward in the line of the arrow in Fig. 1, consequently the shank E' will be drawn against the upper portion of the arm D² and thereby raise the eye E³ upward away from the hook D⁴, as shown at e in Fig. 1, so that no strains come upon the hook or eye during the stroke of the oar. To secure this advantage and reduce the tendency of the plate E' and its eye E³ to be subjected to undue strains, is the object of forming the interior areas of the hook and eye larger than is sufficient to fit one over the other, as before mentioned. About the only strains therefore which come upon the plate

E' and its eye E³ are those to which they are subjected during the return stroke, which are very slight, not exceeding the mere weight of the oar. The forming of the hook D⁴ with its backward and downward curve b' is also a very important and necessary feature of the invention, as by this form the oar is in no danger of being detached from the lock during the return stroke, while at the same time the oar can be readily detached by turning it completely over or in an inverted position, and slipping the outer part of the eye E³ through the contracted throat b², a very unusual position, and one which the oar could not be made to assume by accident or when in use. The oar therefore would not be liable to become detached while in use, but at the same time it could be readily detached if required. Being thus arranged when the pulling stroke is made, the presence of the eye E³ and the hook D⁴ does not interfere with the action of the oar, but when the return stroke commences, the shank is drawn away from the arm and by means of the connection to the hook D⁴ on the latter by the eye E³, the oar is turned one fourth of a revolution, bringing the blade flatwise to the water, or causing it to "feather." The "feathering" is therefore accomplished automatically and positively, and independently of any action of the rower, who is not required to pay any attention to his oars, further than to loosen his grip and allow the handles to turn freely in the hands during the commencement of the return stroke and at its close.

Having thus described my invention, what I claim as new is—

1. In an oar lock a curved arm D² pivotally mounted upon the gunwale of the boat and with a hook D⁴ formed upon its upper end, said hook having its extremity b' curved backward and downward to form a contracted throat or entrance to said hook, between the body of said arm and said hook in combination with the oar having the plate E' with eye E³ adapted to be inserted into and removed from said hook only through said contracted throat, substantially as and for the purpose set forth.

2. In an oar lock, a curved arm D² pivotally mounted upon the gunwale of the boat and with the hook D⁴ upon its upper end, the point b³ upon said arm forming the rear or abutment to said hook, and with the extremity b' of said hook curving backward and downward above said point or abutment whereby a contracted throat or entrance is formed to said hook, in combination with the oar having the plate E' with eye E³ adapted to be inserted into and removed from said hook only through said contracted throat, substantially as and for the purpose set forth.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

WILLIAM J. GESSART.

Witnesses:

C. N. WOODWARD,
H. S. WEBSTER.