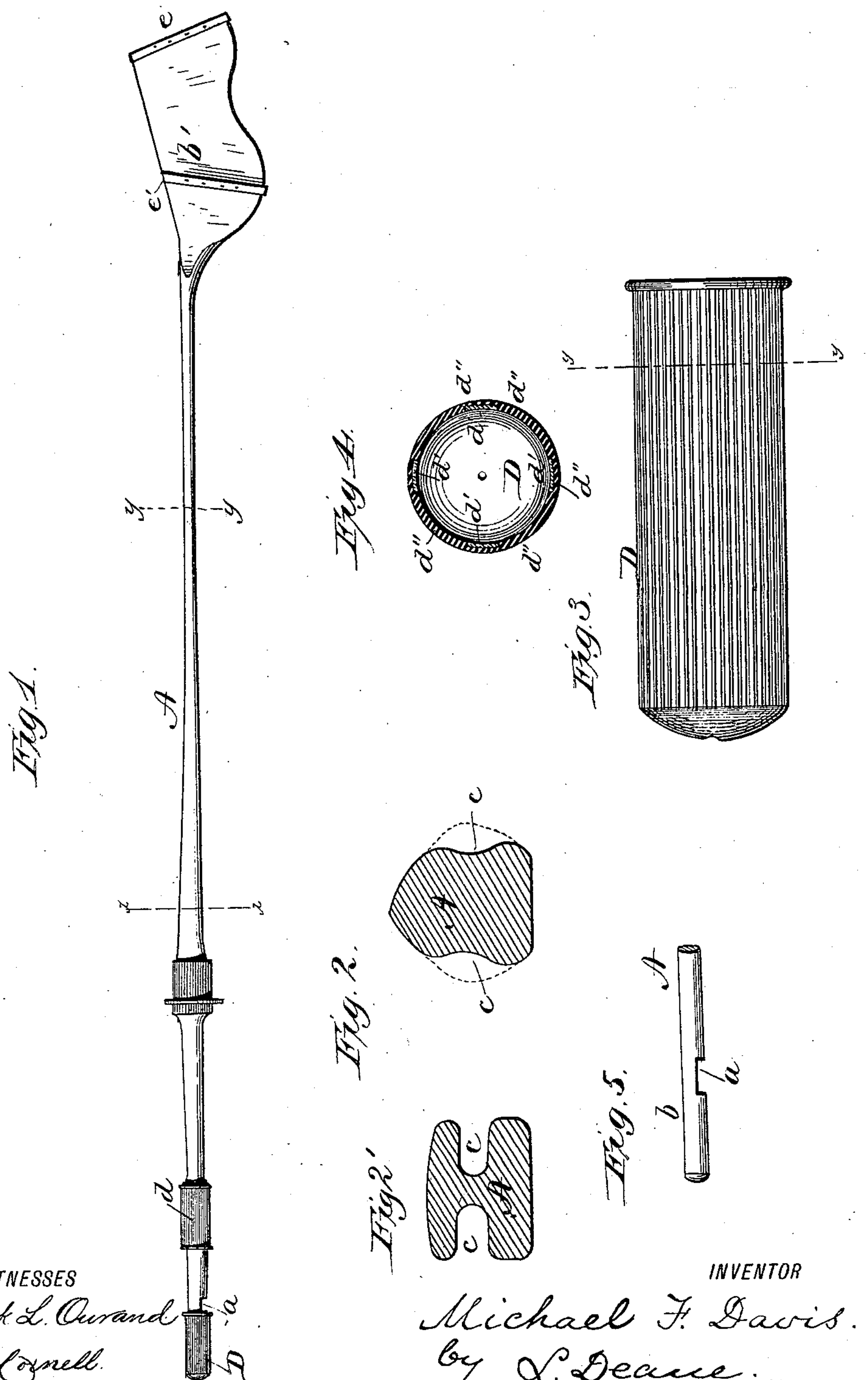
(No Model.)

M. F. DAVIS.

OAR.

No. 282,856. Patented Aug. 7, 1883.



WITNESSES

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MICHAEL F. DAVIS, OF PORTLAND, MAINE.

OAR.

SPECIFICATION forming part of Letters Patent No. 282,856, dated August 7, 1883.

Application filed February 1, 1882. (No model.)

To all whom it may concern:

Be it known that I, MICHAEL F. DAVIS, a citizen of the United States, residing at Portland, in the county of Cumberland and State of Maine, have invented certain new and useful Improvements in Oars; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 is an elevation of the oar. Fig. 2 is a section of the oar on line *x x* of Fig. 1; Fig. 2′, same on line *y y* of Fig. 1. Fig. 3 is an elevation of the handle-cover. Fig. 4 is a section of Fig. 3 on line *y y*. Fig. 5 is a detail of the handle, showing the thumb-hole.

This invention relates to such improvements in oars used in racing-boats as shall afford a very light device and an excellent blade, and also prevent, in a very great degree, the trouble which has heretofore risen from the slipping of the hand on the oar and from straining the thumb-joint.

It has heretofore been considered necessary that the oar should preserve throughout a round or nearly round form in cross-section, such form being generally regarded as essentially the best for use and as the most desirable for easy manufacture; but the objections to this form are that in this way very much unnecessary wood or stock is retained, and consequently needless bulk. It has also been found that when the handle part of the oar becomes dampened or wet from any cause—as by rain, splashing of water, or even by the moisture of hand—the oarsman could not secure the firm unslipping grasp, which is an absolute necessity when using the oar for racing purposes, and also that the slipping of the hand on the oar caused blisters; also, that with the spoon-blades now in use the lower edge is always liable to "tick" or splash over the surface of the water as the oarsman recovered his stroke.

By my invention I have obviated these difficulties by grooving out the oar lengthwise of the handle and loom part of it, and thus removing all neutral or useless stock, and by providing a cover for the handle part consisting of an annulus or cap of canvas and rubber combined, and finally by the peculiar shape of the lower edge of the spoon or blade, all as will now be more fully set forth and explained.

In the drawings, A denotes an oar made according to this invention. Lengthwise in its loom and body, from handle *b* to blade *b′*, are made, on opposite sides, the grooves *c c*. It is designed that by these grooves about one-eighth part of the wood in one of these oars (made as has been heretofore the custom) shall be taken out. It will be noted on careful consideration, what I have fully developed by actual test—namely, that in this lessening of the bulk of the oar I have in a very slight, if any, degree taken away from or diminished the strength of the oar, and this happens because the wood removed performed no office, either in resisting strain or wear when the oar was in use. I have by this operation only taken out the portion of wood which was superfluous or neutral. The part left is of the proper proportions to resist all the varied strains brought upon it, as well as all the wear. The gain in leaving a light oar as well as a strong one is too evident to any one skilled in boating matters to need any discussion at this time.

In the handle end *b* of the oar is made, about three and a half inches from the end, a thumb-slot, *a*. This is designed to receive the oarsman's thumb, and by means of it the peculiar strain of the thumb-joint in the old-style handle is obviated. This construction enables the oarsman to pull with a straight arm and to feather with both hands, whereas by any construction heretofore known to me the oarsman could only keep a continuous grip with one hand while the other slid around the handle.

The handle *b* is covered with cap or tube D, made of rubber, *d″*, with longitudinal strips of canvas, *d′*, inside, properly embedded in the rubber, in alternation of the different material, preferably as seen in Fig. 4. By this construction the canvas is placed inside of the cap D, and thus comes against the wood of the handle. The canvas will aid very essentially in preventing the handle from turning or slipping in the cap. As a matter of fact, if the cap were made of rubber alone, it would soon get stretched or smooth inside, and so turn or

move on the handle. The exterior of this cap or tube may be roughened by parallel corrugations extending from end to end. This cap will have sufficient elasticity to be easily forced over and upon the handle, where it may be secured by cement, or otherwise. In like manner the annulus *d* on the loom of the oar gives the handle-cover for the other hand of the oarsman. This is made in like manner as cap D, and applied in the same way; but I do not limit myself to the peculiar structure of this cover or tube, which I have above described, for it can be made in various other ways to give the result in general above set forth. Even a plain rubber cover or tube may be applied and used in the same way and very advantageously, or simply pieces of rubber may be fastened on the handle. My aim in this feature of the present invention is to provide such an appliance as will obviate the difficulties I have generally stated in the beginning of this specification.

While I have illustrated this improvement in oars as applied to those oars used in racing-boats, it is evident that it can be applied to any sort or description of oars.

The blade *b'* of the oar is in many particulars like that shown in my Patent No. 231,016; but instead of having a continuous curve from shank to end on the lower edge of the blade, the said edge is so cut away as to have an inwardly-curving line, and thus a wider and shorter blade is secured; but there is no more stock or surface in the blade than in my other oar, the shape, not the superficial area, being changed; but this peculiar shape of the blade renders it necessary to provide binding-straps *e e'*, one at the end and the other near the shank. The object of this curvilinear under side of the blade is to enable the oarsman to clear the water more readily as he recovers at the end of the stroke. The old-style blade being spoon-shaped, the lower swell is, in the recover of the stroke, apt to tick or strike on the top of the water, unless special attention is paid to obviating this; but by the curvilinear line or shape now shown the lower edge of the spoon-blade comes practically parallel with the surface of the water, and so will just go clear of it as the blade is thrown forward on the recover.

Having thus described my invention, what I consider new, and desire to secure by Letters Patent, is—

1. An oar having the two opposite sides of its body between handle and blade grooved out, substantially as described.

2. A spoon-blade oar having its under side cut away so as to have an inwardly-curving line, substantially as described.

3. A cap or handle-cover for an oar, made of rubber, and having inside longitudinal strips of canvas alternating with the rubber, substantially as described.

4. In combination with an oar-handle, a rubber cover corrugated from end to end on its exterior surface, substantially as described.

5. The combination of oar A with handle-cap D, closed at its end, substantially as described.

6. An oar having a spoon-blade, *b'*, with an in-turned curvilinear lower edge, and bound by straps *e e'*, substantially as described.

7. An oar having a cross-slot, *a*, in its handle to afford room for the oarsman's thumb, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

MICHAEL F. DAVIS.

Witnesses:
G. W. BALLOCH,
GEORGE CORNELL.