

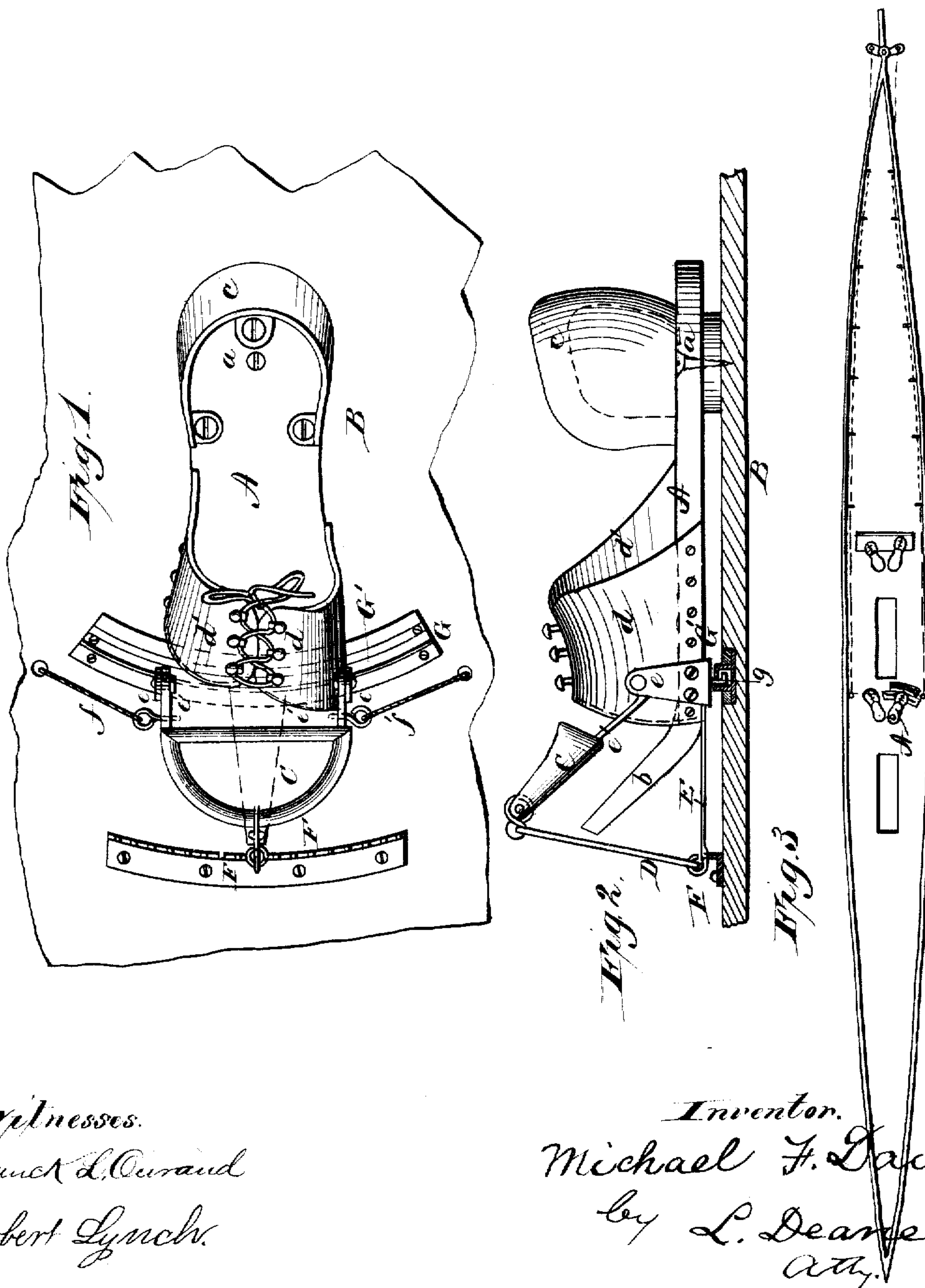
(No Model.)

M. F. DAVIS.

Foot Board and Steering Apparatus for Boats.

No. 231,017.

Patented Aug. 10, 1880.



*Witnesses.*  
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# UNITED STATES PATENT OFFICE.

MICHAEL F. DAVIS, OF PORTLAND, MAINE.

## FOOT-BOARD AND STEERING APPARATUS FOR BOATS.

SPECIFICATION forming part of Letters Patent No. 231,017, dated August 10, 1880.

Application filed March 18, 1880 (No model.)

*To all whom it may concern:*

Be it known that I, MICHAEL F. DAVIS, of the city of Portland, Maine, have invented a new and useful Improvement in Foot-Boards and Steering Apparatus for Row-Boats, of which the following is a specification, reference being had to the accompanying drawings, forming part of the same, in which—

Figure 1 is a plan or upper face view of an apparatus that embodies my improvement. Fig. 2 is a side view of the same, and Fig. 3 is a view looking down into a row-boat to which my improved apparatus is applied.

My invention relates to a foot-board and a steering apparatus connected therewith for row-boats, that is adapted to be operated by the foot of the oarsman.

A is the foot-board, which is adapted in form to the sole of the foot of the oarsman. It may be made of wood. It is pivoted at the heel *a* to a base-board, B, so that it may swing freely on its pivot. The portion *b* against which the toes are to rest is turned upward at an angle of about forty-five degrees.

*c* is a heel-piece, which is made of a metal frame securely fixed to the foot-board A and covered with leather, and is so constructed as to embrace and confine the heel of the user. *d d'* are broad straps or pieces secured to the board A, so that they may be laced on the foot just over the bend of the toes, leaving the instep free, so as not to impede circulation.

C is a toe-piece, made of a metal frame covered with leather, preferably stayed by a wire running around its edge. It is hinged to ears *e* by means of arms *e'*, that extend one on each side from its rear end, the ears being secured to the board near its forward end.

D is a rod, hinged at its upper end to the front end of the toe-piece, and at its lower end to a spring-catch, E, that is secured to the foot-board A. F is an upwardly-projecting curved rib secured to the base-board B, and provided with a series of notches, with which the catch E engages. The tiller-ropes *f f'* are secured to the foot-board A near its forward end, one on each side.

G is a curved groove in the face of the base-board B. A curved plate, G', caps this groove, leaving a narrow curved slot, into which projects from the foot-board an arm, *g*, that is bent so as to lock under the plate G'. This

prevents the raising of the foot-board off the base-board, while it permits a free lateral movement on the pivot at the heel. This foot-board is designed to be placed in a row-boat in position to enable the oarsman to conveniently insert his foot within the heel-piece and straps. One for each foot may be provided. A tiller rope or wire may run from the rudder along each side of the boat to the foot-board through suitable pulleys or eyes.

In operating the apparatus above described the user raises with his toe or toes the toe-piece C, which lifts the spring-catch out of the notch in the rib F, and then swings the foot-board on its pivot to the right or left, as he may desire, thereby steering his boat by merely swinging his foot on his heel.

The foot-board serves the purpose of a convenient and comfortable foot-rest for the oarsman, while at the same time it is made to perform the office of a steering apparatus. It is peculiar in construction in having the forward end, upon which the toes rest, turned up at an angle of about forty-five degrees, and, while the heel is confined in a suitable heel-piece, lacing-straps inclose the foot just at the bend of the foot, between the toes and instep, leaving the instep free and unconfined.

The foot-board can be adapted to the size of any foot by merely moving the heel-piece up or down, which is easily done by changing the location of the screws holding the heel-piece to the bottom of the foot-board. It is evident that instead of screws slides and clamps may be used, if desired. The turned-up part *b* will insure such position for the foot as will enable the oarsman to avail himself of nearly the full power of the foot.

In use it is designed to place in each shell or boat two of the foot-boards above described for each oarsman, but the steering gear or apparatus is attached to but one, and to either foot desired. When once the foot-board is adjusted to the oarsman's foot, by fixing the position of the heel-piece and adjusting the lacing over the bend of the foot it is permanently arranged for use, and will need no further manipulator.

In case of an overset of the boat or any accident the oarsman's foot can be quickly and safely disengaged by merely raising the heel.

A foot-board constructed as above described



will obviate the use of shoes or slippers for the oarsman, since the stocking foot, or even the bare foot, will very comfortably fit into the foot-board. By thus enabling the oarsman to  
5 dispense with the weight of the shoes a very important advantage is secured, especially when it is considered that the least decrease of weight is of importance.

What I claim as my invention, and desire to  
10 secure by Letters Patent, is—

1. A combined foot-board and steering apparatus for row-boats, consisting of the pivoted foot-board A, provided with the swinging toe-piece C, connected to the spring-catch E,  
15 and a suitable stop with which said catch engages, substantially as described.

2. The combination, with a row-boat, of a foot-rest composed of the foot-board A, having the point *b* turned up at an angle with the  
20 body of the board of about forty-five degrees,

and provided with the heel-piece C and straps or pieces *d d'*, arranged to lace over the foot just across the bend of the foot, between the instep and the toes, substantially as described.

3. The combination of a pivoted foot-board 25 provided with locking mechanism, substantially as set forth, with the steering apparatus of a row-boat, substantially as and for the purposes described.

4. In combination with the foot-board of a 30 row-boat having its forward end curved and provided with straps or pieces *d d'*, the adjustable heel-piece C, consisting of a frame suitably covered, substantially as and for the purposes described.

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