(No Model.)

## J. J. TURPEL.

SEAT AND FOOT BOARD FOR ROW BOATS.

No. 304,474.

Patented Sept. 2, 1884.

Fig.1.

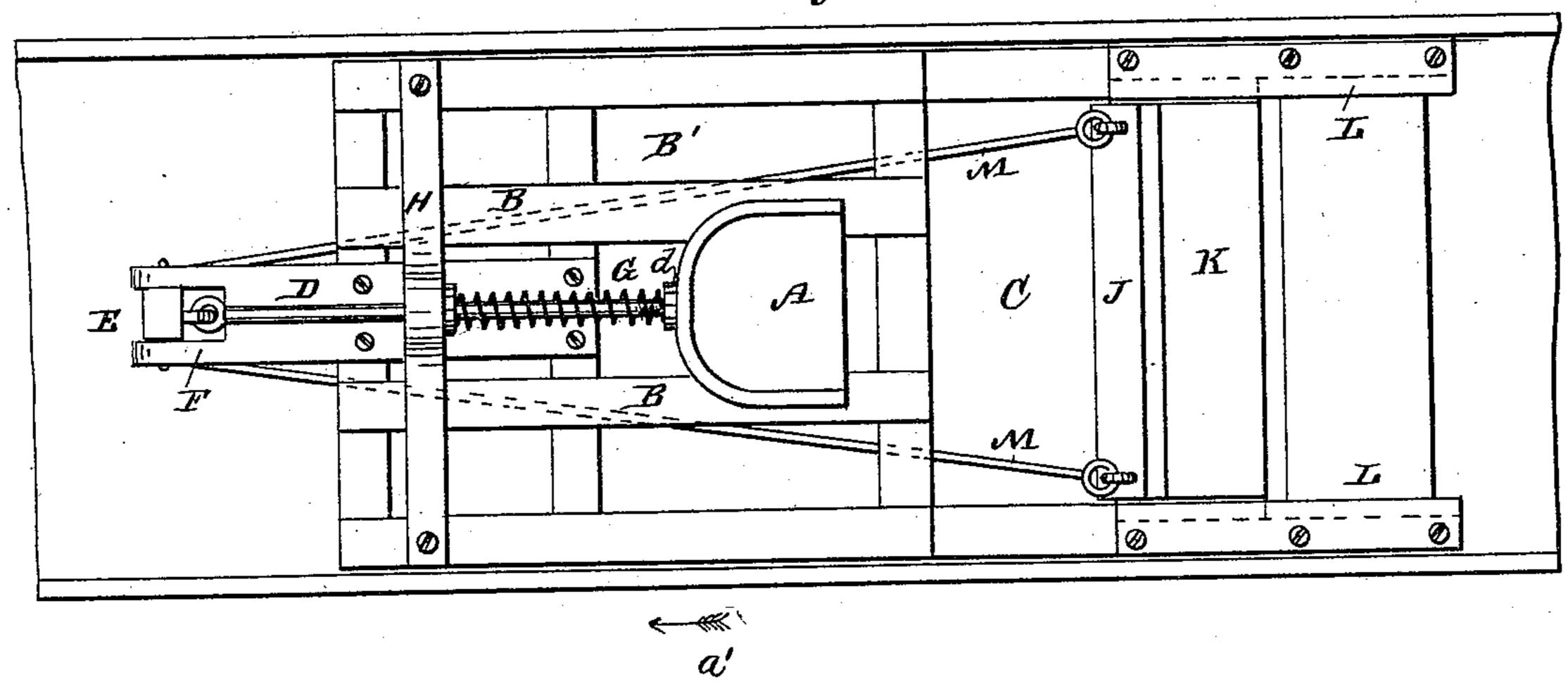


Fig. h.

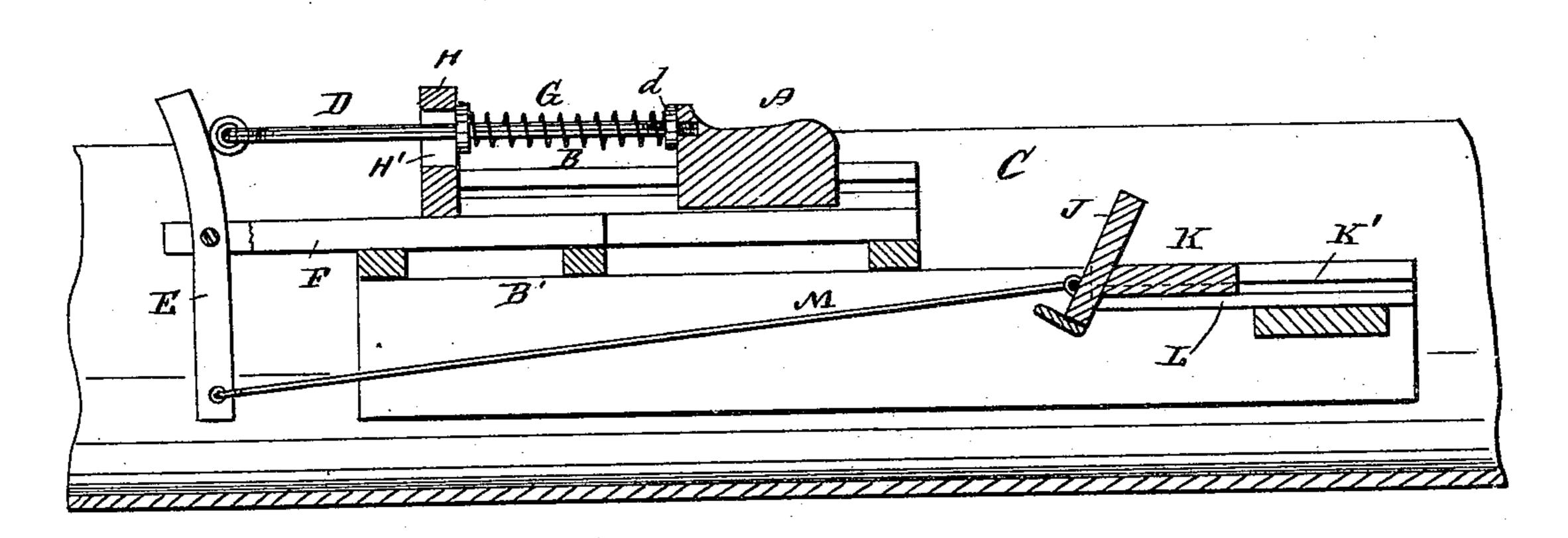
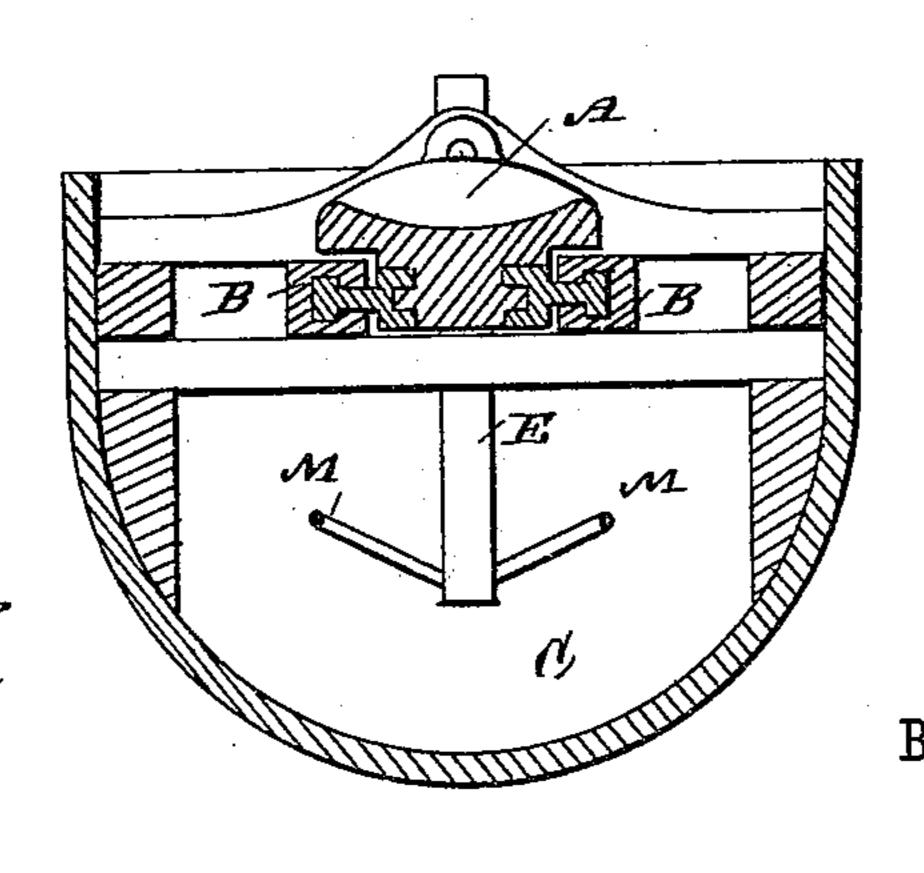


Fig. 3.



WITNESSES:

b. Sedgwick

INVENTOR:

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## United States Patent Office.

JAMES J. TURPEL, OF HALIFAX, NOVA SCOTIA, CANADA.

## SEAT AND FOOT-BOARD FOR ROW-BOATS.

SPECIFICATION forming part of Letters Patent No. 304,474, dated September 2, 1884.

Application filed December 5, 1883. (No model.)

To all whom it may concern:

Be it known that I, James J. Turpel, of Halifax, in the Province of Nova Scotia and Dominion of Canada, have invented a new and Improved Seat and Foot-Board for Row-Boats, of which the following is a full, clear, and exact description.

This invention relates to certain new and useful improvements in sliding seats for row10 boats or shells, and has for its object to enable the sculler to recover more rapidly and with less labor than in a boat with the ordinary sliding seat.

The invention consists in a boat constructed with a sliding seat and a sliding foot-board, which are connected to slide in opposite directions, which seat is combined with a spring to move it forward, and thus facilitate the recovery of the oarsman.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of part of a boat provided with my improved sliding seat and foot-board. Fig. 2 is a longitudinal sectional elevation of the same. Fig. 3 is a cross-sectional elevation of the same.

The sliding seat A, of the usual construction, is held to slide between or on two tracks, B, held longitudinally on a suitable frame, B', in the boat C. A rod, D, projects toward the rear from the seat, and has its rear end pivoted to the upper end of an upright lever, E, pivoted to a bar, F, projecting from the rear of the frame B'. A spiral spring, G, surrounding the rod D, is held between the rear

an aperture, H', of which the rod D passes.

The foot-board J is secured to a cross-piece,
K, held to slide in longitudinal track-grooves
K', formed in longitudinal plates L in the
boat; or the foot-board can be arranged in
any other suitable manner to slide in the di-

of the seat A and a cross-piece, H, through

rection of the length of the boat. The lower end of the lever E is connected by rods M with the foot-board. The nut or collar d on the rod D, at the rear of the seat, is to be adjustable along the rod to vary the pressure of the spring G, as required.

The operation is as follows: If the oarsman makes a stroke, the seat is moved in the direc-

tion of the arrow a' and the spring G is compressed. The rod D is moved in the same direction, and by means of the lever E moves 55 the rods M and the sliding foot-board J in the inverse direction. After the finish of the stroke, when the oarsman recovers, the spring G expands and pushes the seat in the inverse direction of the arrow a', the sliding foot-board 60 being drawn in the direction of the arrow a'. The oarsman need not pull back the seat after the stroke, and thus can expend all his force and power on the stroke. The recovery is very rapid, and thus the oarsman is enabled 65 to row very fast in a boat provided with my improved sliding seat and foot-board.

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

1. A row-boat provided with a sliding seat and a sliding foot-board connected together, and mechanism for causing the said seat and foot-board to automatically return to their normal positions.

2. A row-boat provided with a sliding seat and with a sliding foot-board, which are combined to move in opposite directions, substantially as herein shown and described.

3. The combination, with a row-boat, of a 80 sliding seat and a sliding foot-board, a lever swinging in the vertical plane, and connecting-rods for connecting the seat and foot-board with the ends of the said lever, substantially as herein shown and described.

4. The combination, with a row-boat, of a sliding seat and a sliding foot-board, of a spring for moving the seat forward, and of devices for connecting the seat and foot-board in such a manner that they slide in opposite 90 directions, substantially as herein shown and described.

5. The combination, with a row-boat, of the sliding seat A, the sliding foot-board J, the lever E, the connecting-rods D and M, connecting the ends of the lever E with the seat A and foot-board J, respectively, the spring G, and the cross-piece H, substantially as herein shown and described.

JAMES J. TURPEL.

Witnesses:

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