

(No Model.)

J. W. WILSON.
DUMPING BOAT OR SCOW.

No. 279,684.

Patented June 19, 1883.

Fig 1.

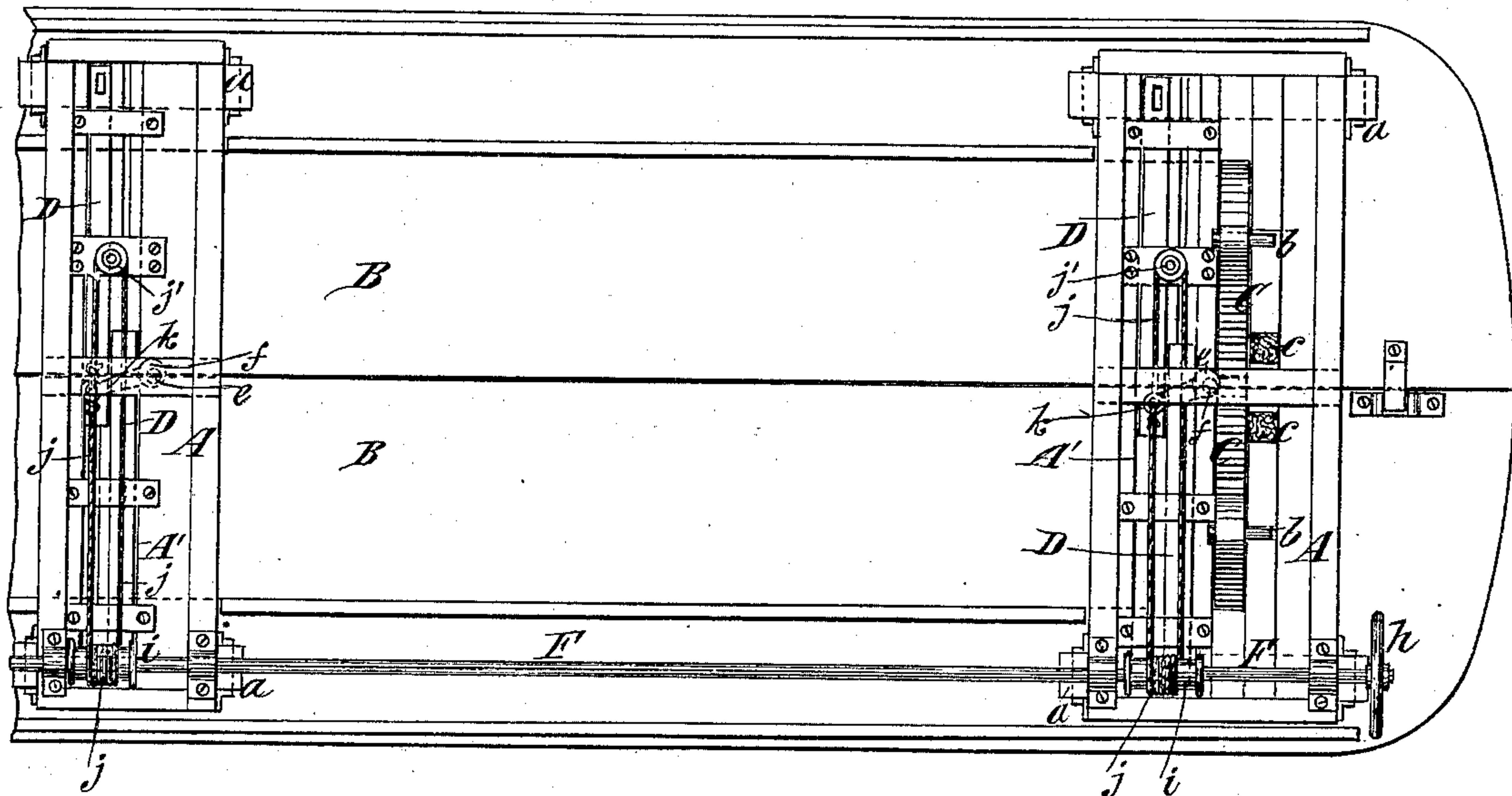


Fig 2.

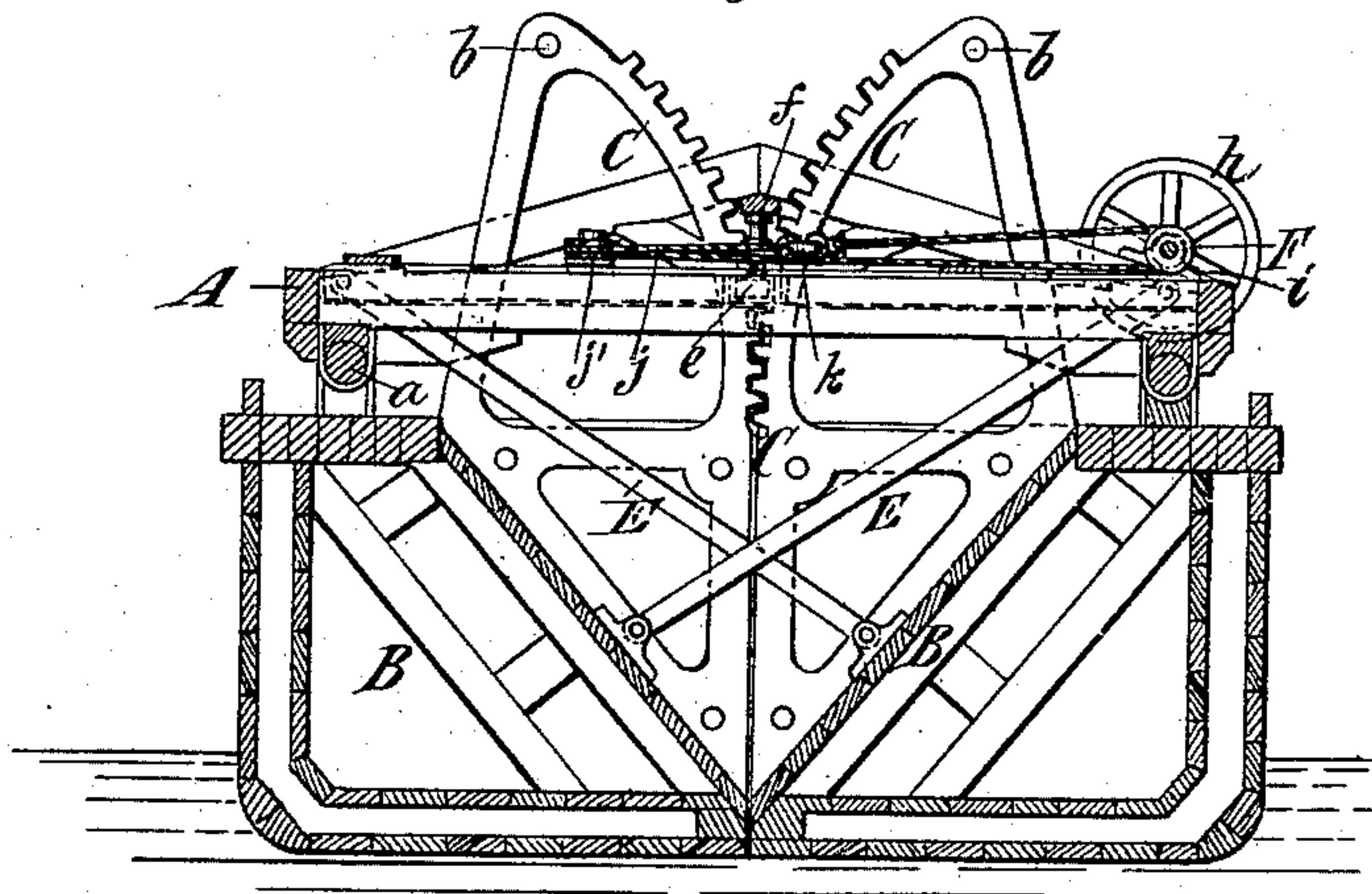
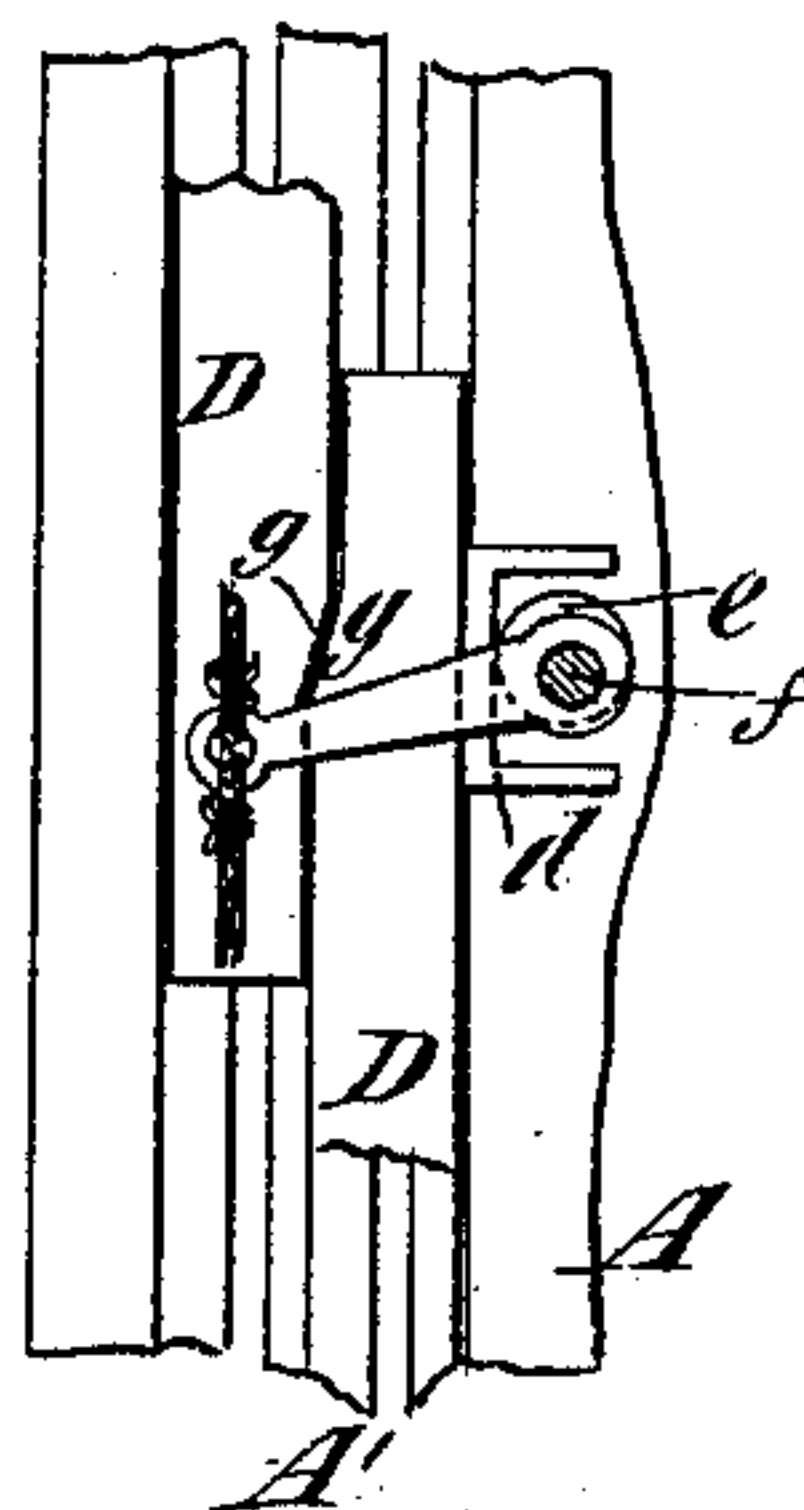


Fig 3.



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UNITED STATES PATENT OFFICE.

J. WALL WILSON, OF NEW YORK, N. Y.

DUMPING BOAT OR SCOW.

SPECIFICATION forming part of Letters Patent No. 279,684, dated June 19, 1883.

Application filed March 23, 1883. (No model.)

To all whom it may concern:

Be it known that I, J. WALL WILSON, of the city of New York, in the county and State of New York, have invented a new and useful Improvement in Dumping Boats or Scows, of which the following is a specification.

My invention relates to the dumping boat or scow of the class shown and described in United States Letters Patent No. 271,298, granted January 30, 1883, to Nathan Barney. Such boat or scow comprises two or more platforms or bridges and two floats or pontons hinged at their upper and outer longitudinal edges to said platforms or bridges, so that they may swing downward and outward to dump the load between them, and then brought together again to receive a new load upon their upper surfaces. The means shown and described in said Letters Patent for holding the floats or pontons together and for retaining and controlling their outward and downward movement when released to dump a load consist of pairs of sliding bars arranged in suitable slideways transversely to the length of the boat, and the floats or pontons are so connected with said bars that the movement of the floats or pontons in dumping produces a sliding movement of the bars against each other and the walls of their slideways. The locking mechanism consists of a cam or other device whereby the sliding bars may be pressed together or against the walls of their slideway with such force as to absolutely prevent their movement, or as to generate friction sufficient to more or less retard their opening and closing or returning movement; and the locking mechanism for the two or more pairs of sliding bars is operated simultaneously by means of a shaft arranged centrally to and extending lengthwise of the boat or scow through or above the platforms or bridges. Such central shaft is very much in the way in loading the scow, and the object of my invention is to dispense with the shaft so located, and to arrange it elsewhere, so that it will not be so much in the way.

The invention therefore consists in the combination, with platforms or bridges and two floats or pontons hinged at their upper and outer longitudinal edges, of pairs of sliding bars connected with said floats or pontons, locking mechanism arranged at or near the

center of the boat or scow for acting upon each pair of sliding bars, a shaft extending lengthwise of the boat or scow at one side thereof, and gearing, substantially as hereinafter described, connecting said shaft with the locking mechanism of the pairs of sliding bars, whereby they may be locked or released simultaneously.

The invention also consists in novel combinations of parts hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a plan of a boat or scow embodying my invention, one end portion being broken away. Fig. 2 is a transverse section thereof. Fig. 3 is a plan of portions of a pair of sliding bars and their slideway on a larger scale.

Similar letters of reference designate corresponding parts in all the figures.

A A designate bridges or platforms adjacent to opposite ends of the boat or scow, and B B designate two similar floats or pontons hinged to said bridges or platforms at their upper and outer longitudinal edges by pintles *a*, so that they may be brought together, as shown in Fig. 2, or may swing downward and outward to dump the load between them. After dumping, the floats or pontons will return together by reason of their buoyancy, and if their buoyancy is not sufficient, mechanism may be used for drawing them together or completing their movement. Such mechanism I have not shown, as it forms no part of my invention.

As here shown, the floats or pontons B are geared together at opposite ends by means of pairs of toothed or spur-gear sectors C, which engage with each other and insure the simultaneous movement of the floats or pontons both outward and inward. The sectors C are provided at or near their upper ends with projecting pins or studs *b*, and as the floats or pontons B reach the end of their outward movement said pins or studs strike upon cushions *c*, of rubber or other material, as shown at the right hand of Fig. 1, and the movement of the floats or pontons will be terminated gradually and without injurious shock.

In each bridge or platform A is a slideway, A', and in each slideway is arranged a pair of bars, D, which are shown as connected by rods E, one with each float or ponton B. As the floats or pontons move outward or inward

the bars D are moved or slid in opposite directions in their slideway, and no movement of the floats or pontons can take place without such a movement of the bars.

5 In connection with each pair of sliding bars D, I employ a locking mechanism for holding or pressing the bars tightly one against the other and against one side of the slideway A'. The locking mechanism here shown consists of a yoke, *d*, bearing against one of the bars D, as shown in Fig. 3, and a cam, *e*, working in the yoke and fixed to an upright shaft, *f*. When the shaft *f* is turned in one direction the cam acts upon the yoke and presses the bars D tightly together and against the opposite side of the slideway A'; but when turned in the reverse direction the bars are released and allowed to slide in opposite directions. The bars may be pressed together with sufficient tightness to hold them by friction alone when the boat or scow is loaded; but in order to lock them positively I may provide shoulders *g* in their adjacent sides, as shown in Fig. 3. When the floats or pontons are brought together, or are entirely closed, the shoulders *g* are opposite each other, and by pressing the bars together, so as to cause them to engage, the floats or pontons are positively locked.

By means of the cam locking mechanism described, the bars D can be held together sufficiently so that their friction when moving will retard the opening or closing movements of the floats or pontons, and therefore such devices serve the purposes of holding the floats or pontons either closed or opened, and of retarding their opening or closing movements. F designates a long shaft arranged at the

side of the boat or scow, and low down where it will be out of the way. It may be turned by a hand-wheel, *h*, or otherwise. Upon said shaft are two drums or windlasses, *i*; and *j* designates ropes, cords, or chains which are coiled several times around the drums or windlasses, and are thence carried partly across the boat and passed around idler-pulleys *j'*. Said ropes, cords, or chains are attached to levers or arms *k* on the upper ends of the cam-shafts *f*, and hence, as the long shaft F is turned, the levers or arms *k* are moved and turn the cam-shafts so as to tighten or release the sliding bars D. This means of operating the cam-shafts is less liable to be deranged in the operation of the boat than any system of gearing involving the use of toothed wheels, which are so easily rendered inoperative by the bearings of their shafts getting out of line; and, moreover, if the bearings of the windlass-shaft should get out of line, all consequent trouble is cured by taking up or letting out the ropes or chains.

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

The combination, with the platforms or bridges A, constructed with slideways A', the hinged floats or pontons B, the sliding bars D, and rods E, of the cams *e* and cam-shafts *f*, and the shaft F, windlasses or drums *i*, and ropes, cords, or chains *j*, for operating said cam-shafts, substantially as described.

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Witnesses:

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