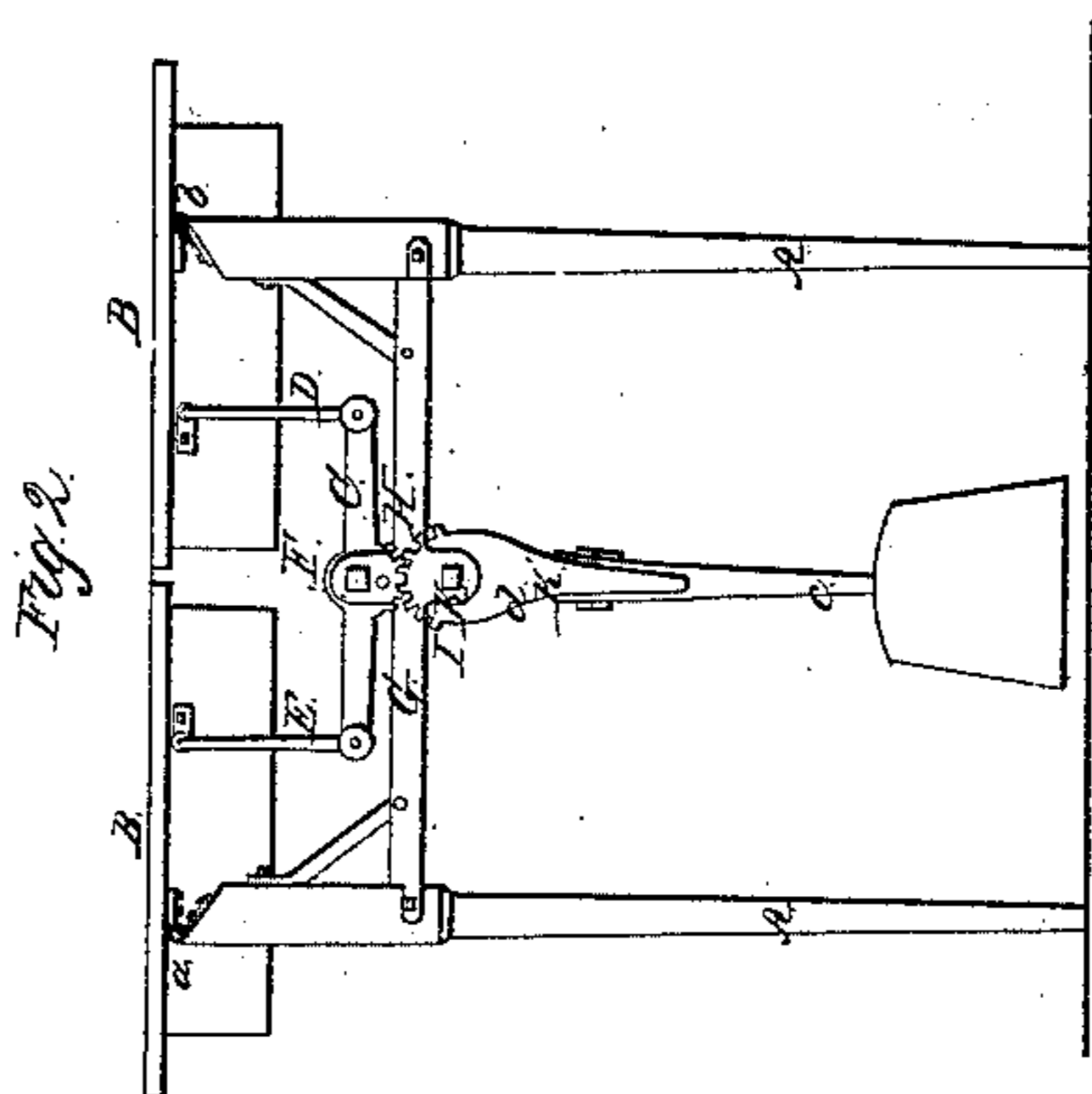
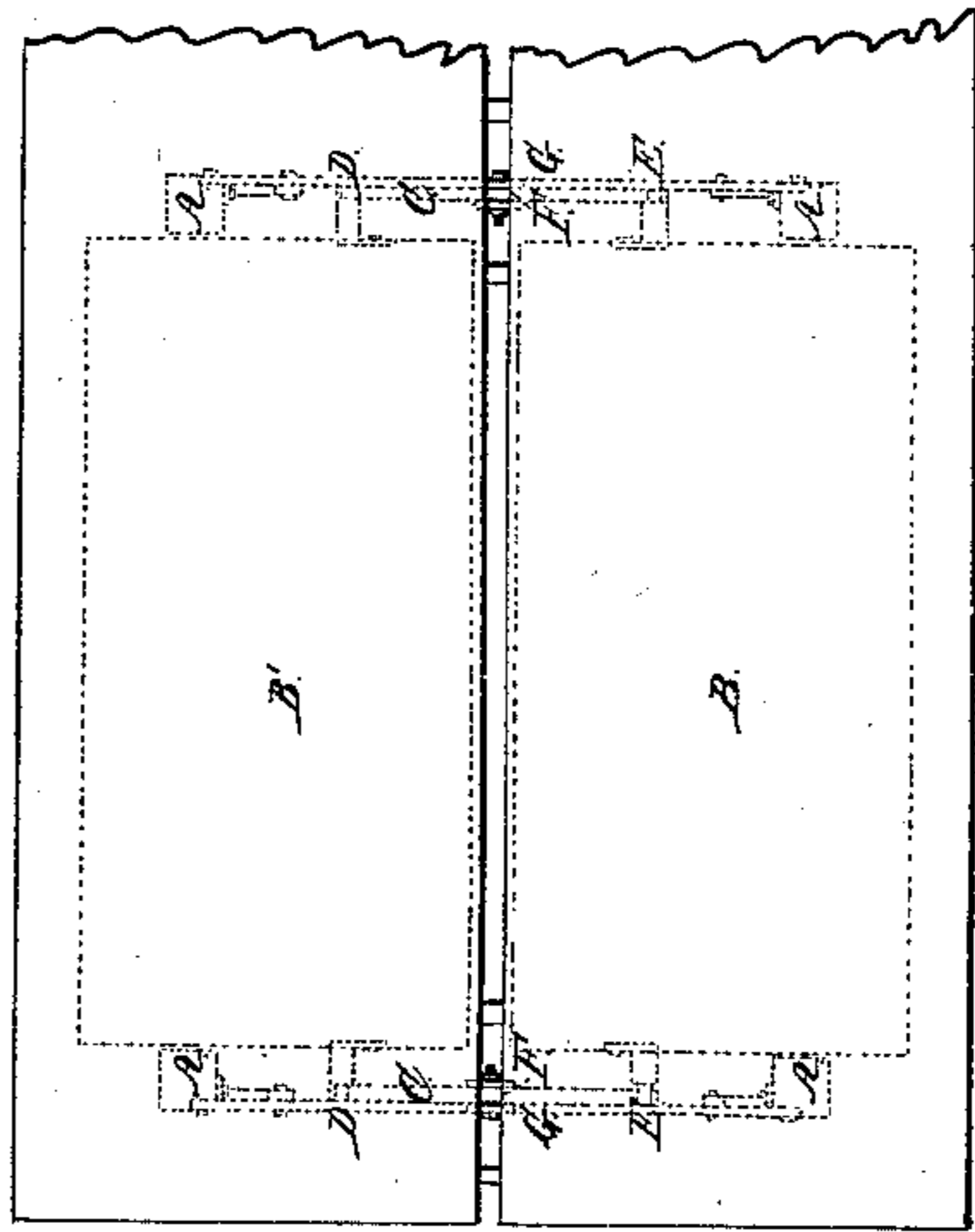
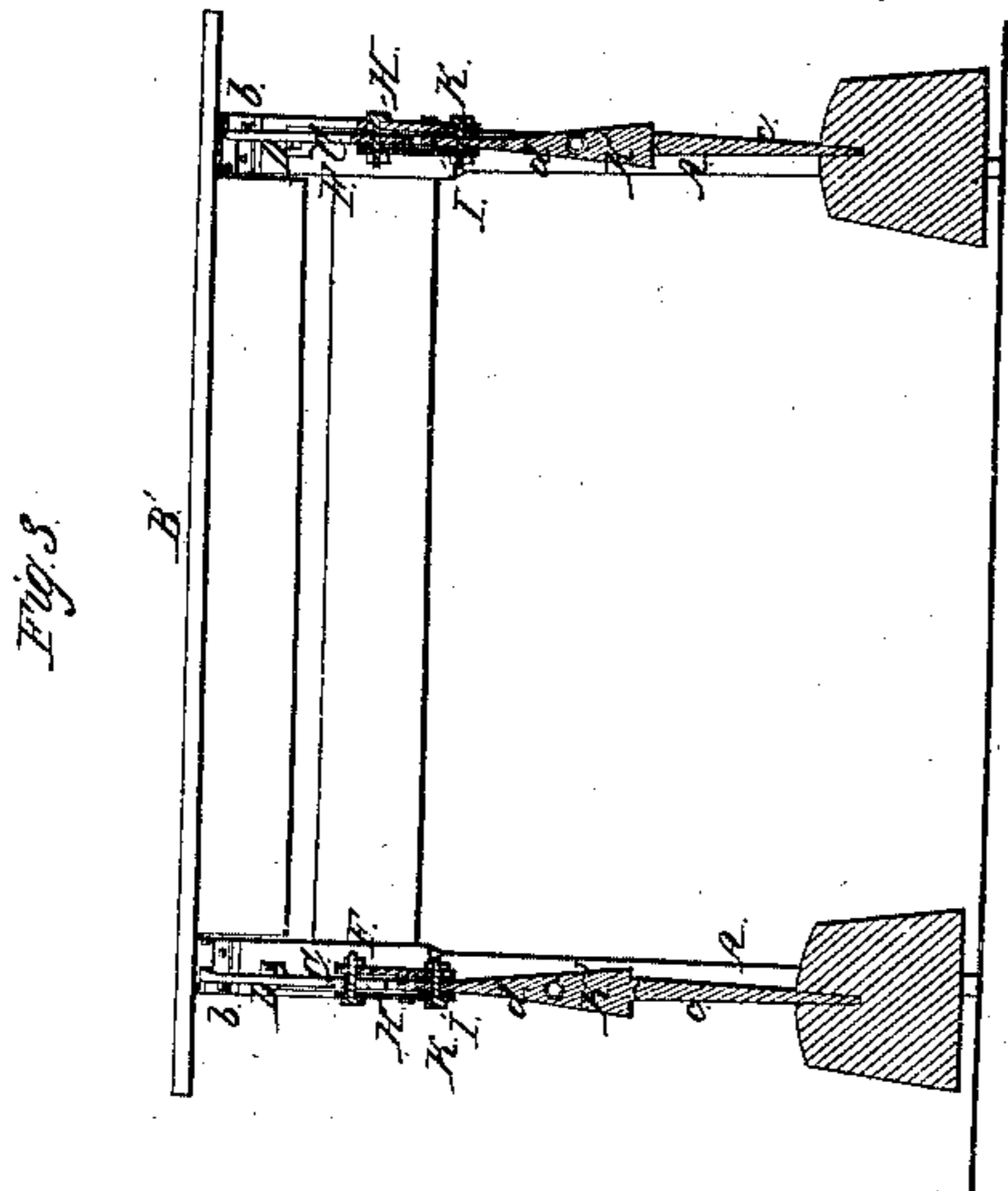
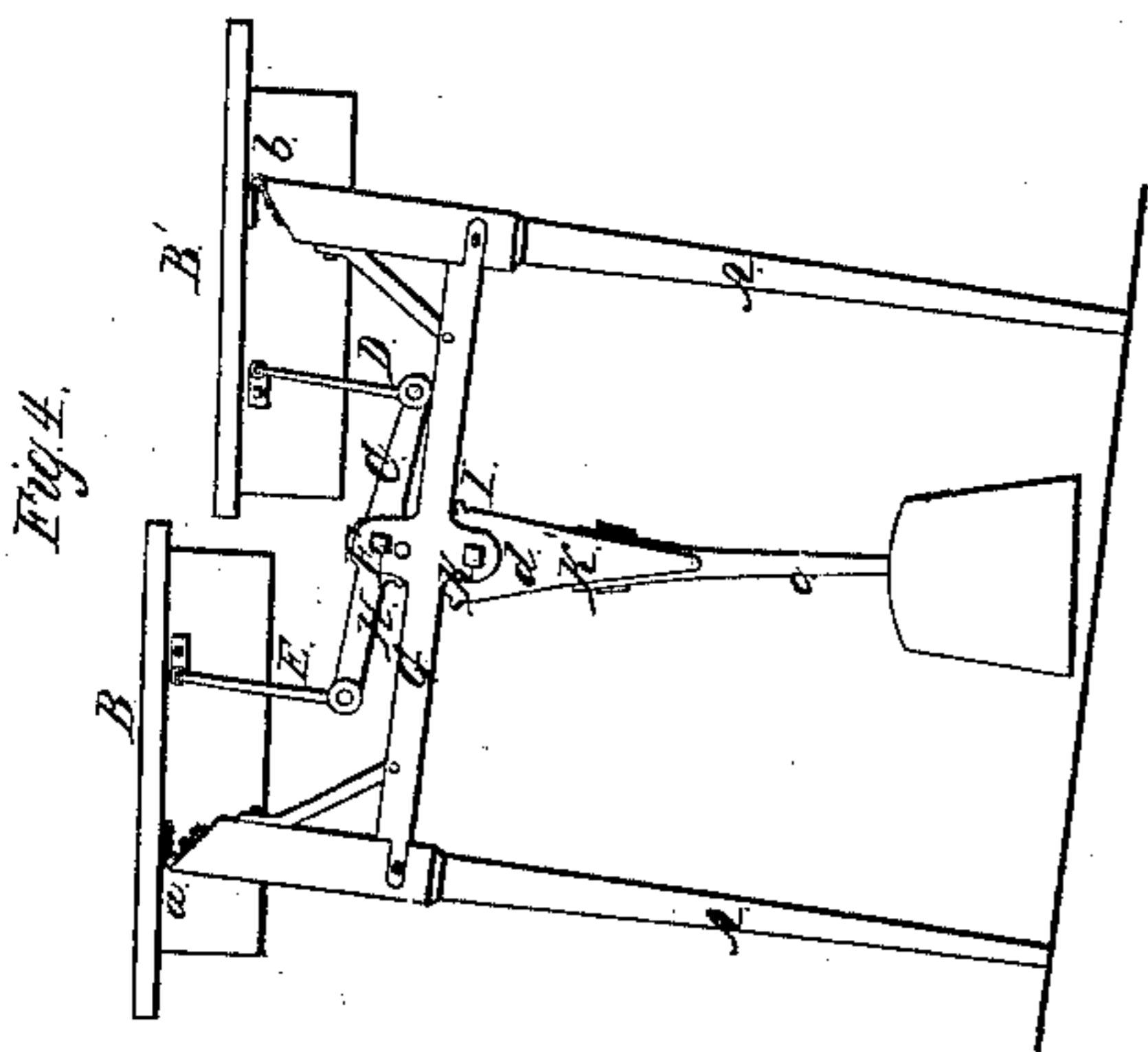
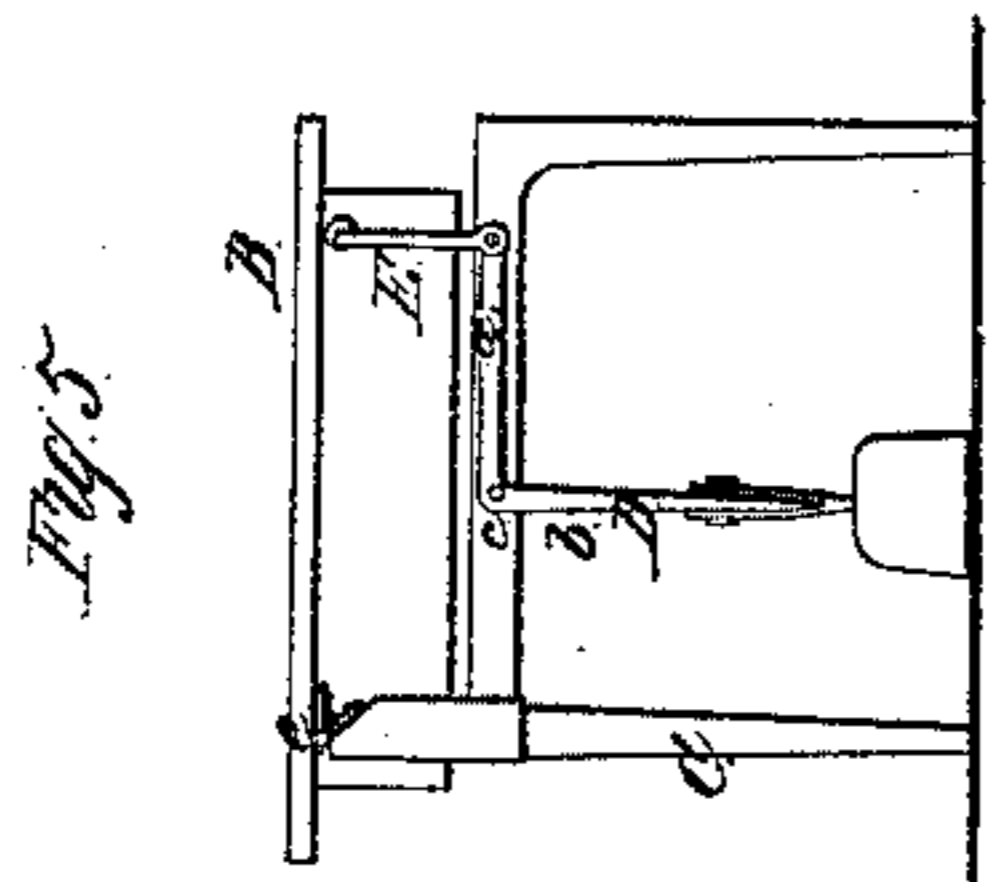


W. N. Boggs,

Dining Table for Vessels,

N^o 6,402.

Patented May 1, 1849.



UNITED STATES PATENT OFFICE.

WILLIAM N. BOGGS, OF SOUTHBOROUGH, MASSACHUSETTS.

TABLE FOR SHIPS' CABINS.

Specification of Letters Patent No. 6,402, dated May 1, 1849.

To all whom it may concern:

Be it known that I, WILLIAM N. BOGGS, of Southborough, in the county of Worcester and State of Massachusetts, have invented a new and useful Improvement in Dining-Tables, Whereby the Same are Rendered Useful on Board Navigable Vessels; and I do hereby declare that the same is fully described and represented in the following specification and accompanying drawings, letters, figures, and references thereof.

Of the said drawings Figure 1, exhibits a top view of my improved table as it appears when the floor on which it may rest is level; Fig. 2, a side elevation thereof; Fig. 3, a central vertical, and longitudinal section thereof; Fig. 4 is a side elevation of the table as it appears when the floor on which it may be supported is in an inclined position.

My improved table is intended especially for the use of seagoing vessels, the particular object of my invention being to always preserve the top surface of the table horizontal in a transverse direction, during the motions of the vessel produced by the sea, or otherwise.

The frame of the table or that part of it which supports the top board or boards, is composed of four or any other suitable number of vertical legs A, A, C c, secured in position by such horizontal bars or cross ties as may be required to impart to them the necessary stability. On this frame I place either one or two top boards B, B', each of which is hinged to two of the side legs or supporting frame by hinges arranged with respect to the middle or side edges of the board as seen at a, b, in the drawings; that is to say the two hinges of each board are placed nearer to that side or edge of it at which it is intended a person shall sit, than they are to the opposite side thereof, and the nearer they can be placed to each side (viz. the side or edge against which a person would generally sit) the better, as the less would be the vertical motions thereof with respect to the supporting frame.

The greatest vertical motion or elevations and depressions of the table when the hinges are so disposed, take place at the opposite side of it. Although the top board or tablet is in reality kept stationary or horizontal transversely, and the supporting frame of the table is the part thereof which moves out of level, still in respect to a person who

might be sitting at the table, as such person moves with the ship, we may consider the top board to have a motion transversely. Although the board is kept horizontal by the pendulum apparatus to be herein after described, the person is moved by the roll or motions of the ship, and as he is raised and depressed, while the top board of the table is made to preserve its horizontal position, it is essentially the same to him as if the table were in motion, and he still, or in other words he experiences the same inconvenience from being thus moved, as he would if he were to remain stationary, and the top board be rocked or vibrated transversely.

The next portion of my invention is the pendulum apparatus, and the manner in which it is applied and operated. Although it may be used to preserve the level of but one leaf or top board, yet I have shown the mode of applying it to two of the same. As in most cases ships' tables would generally be constructed as represented in the drawings that is to say with two of the said top boards. Each of the said top boards, disposed with respect to each other and the sustaining frame or legs A, A, as seen in the drawings, is connected at one or both of its ends to the outer, continuous, or adjacent end of a rocking lever C, by a stiff connecting rod or bar D, or E, disposed as seen in the drawings, the said connecting rod or bar being jointed to the top board and to the rocking lever, by such joints as will admit of vertical movements of the lever and top board. The rod D, or E, should be connected to the top board at a point or place which is about as far from a line running longitudinally through the middle of the top board, as the hinge on the opposite side of the said line is from the line.

The rocking lever C, vibrates or turns on a fulcrum at F, affixed to a cross bar G, which makes part of the supporting frame of the table; and the said lever has a small cogged sector H, extending from it, and immediately below its fulcrum the teeth of this cogged sector, are made to engage with those of another cogged sector I, which turns or plays on a fulcrum or pin K, arranged parallel with that of the sector H. To the cogged sector I, a pendulum K' is affixed and in such manner that when the said pendulum is moved or vibrated transversely of the vessel it shall move the sector

I with it, but always in a direction opposite to that in which the pendulum may be moving. Such movement of the sector I, will create a movement of the sector H, in the opposite direction, and so as to raise one end of the lever C, and depress its opposite end. This will elevate one of the top boards B, or B', on its hinges and depress the other one, and if the parts of the mechanism are properly proportioned to one another, and applied to the top boards and supporting frame, the movements and operation of the pendulum when the vessel or ship rolls transversely, will be such as to cause the said top boards to always maintain their horizontal positions in transverse directions. The longitudinal rise and fall of a ship at sea seldom displaces any articles on a table, it being the transverse roll or motions of the vessel which is productive of damage or displacement of articles resting on a table. The rod of the pendulum K', may be divided into two parts *c*, *d*, the lower one *c*, being jointed to the other in such manner as to allow of a longitudinal swing of the weight correspondent with the pitching motion of the ship.

If desirable there may be two sets of pendulum machinery applied to the table as seen in Fig. 3, or there may be any other suitable number of the same.

Fig. 5, will serve to show how the pendulum apparatus may be made and applied to a table constructed with a single top board. In such figure B, denotes the top board, C, the legs or part of the supporting frame to which the top board B, is hinged; D the pendulum it being in this case a bent lever having two arms *a*, *b*, turning on a fulcrum at *c*.

E, is a connecting rod jointed at one end to the arm *a*, and at the other to the table top B. The hinge which connects the top B, with the legs or supporting frame C, is seen at *e*. A table may also be made with two top boards arranged as seen in Fig. 2, and each of the said top boards may be operated by a pendulum contrivance such as represented in Fig. 5. In this case a pendulum to each top board becomes necessary; but when we desire to operate both top boards by the action of one pendulum, we must make use of two toothed sectors, and a lever and connecting rod, arranged and applied together and to the table, as seen in Figs. 1, 2, 3, 4 of the drawings.

I am aware that there is nothing new in making a table with the rocking bearings and pendulum arranged in the middle of its top board, and in such manner that when the pendulum was moved laterally there would be an elevation of one side or edge

of the table, exactly equal to the depression of the other edge or side. My method of constructing the table and applying the pendulum, is essentially different from that last mentioned, as the turning bearings or hinges of the top board of my improved table, instead of being arranged at the middle of the same are placed on one side of the middle or near that edge at which a person is to sit; and generally directly or nearly under, or in the vicinity of that part of the board on which he would be likely to rest his arms or place any weight, while the connecting rod of the pendulum apparatus is applied to the top near its opposite side or edge. This not only insures great stability to the table, but prevents any movement of it or the person from seriously incommoding him.

The principal feature of my invention, and that claimed by me is—

1. The above described peculiar arrangement of, or manner of arranging the hinges or rocking or turning bearings of the table top, together with that of applying the pendulum apparatus, by which the level of the top board is preserved under the transverse motions of the vessel; the said arrangement consisting first,—in placing the hinges or turning bearings nearer to that edge of a table at which a person is to sit, than to the opposite edge, substantially as shown in the drawings. Second, in applying the pendulum apparatus to the opposite side or part of the table essentially as described, whereby it is caused when the pendulum is vibrated to act against or raise and depress, and give greater motion to that side or part of the table top which is opposite to that at which the person sits; the effect of said arrangement when a vessel is in the act of rolling being not only to render the table free from inconvenient motion where a person sits to it, but to impart to it stability under weight or pressure applied to it near the edge at which the person so sits or is placed.

2. And I also claim the above described mode of making a table, viz, a combination of two top boards B, B', a supporting frame and one or more sets of pendulum apparatus, whether made and applied as exhibited in Figs. 1, 2, 3, and 4, or as represented in Fig. 5, and as above explained, the whole being constructed so as to operate essentially as above specified.

In testimony whereof I have hereto set my signature this nineteenth day of October, A. D. 1848.

WILLIAM N. BOGGS.

Witnesses:

CALEB EDDY,
R. U. EDDY.