

No. 649,427.

W. S. BARNEY.
DUMPING BOAT.

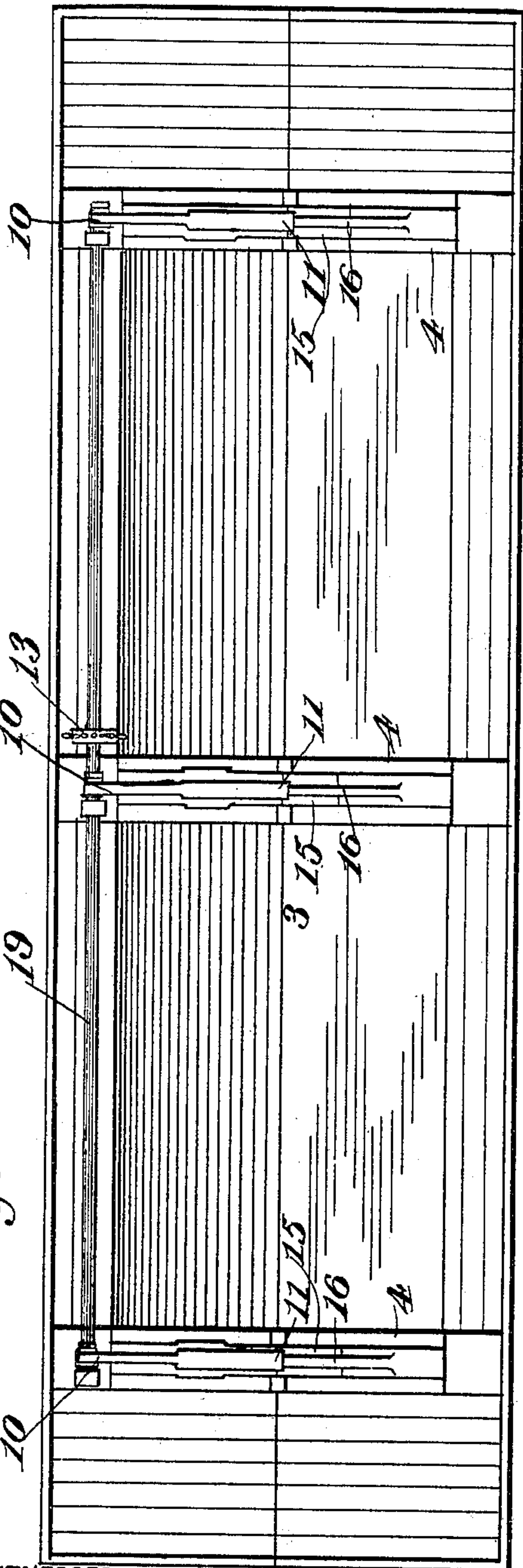
Patented May 15, 1900.

(Application filed June 20, 1899.)

(No Model.)

2 Sheets—Sheet 1.

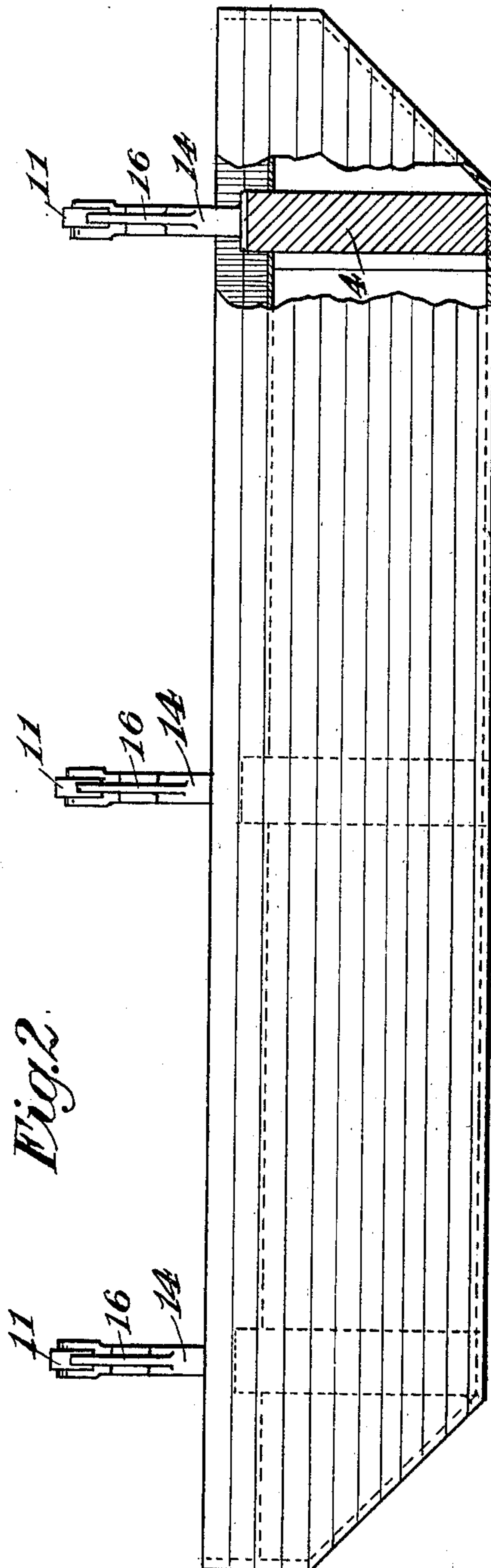
Fig. 1



WITNESSES:

Geo. B. Rowley.
Alex. Ferguson.

Fig. 2



INVENTOR

Walter S. Barney

BY

C. V. Edwards

ATTORNEY

W. S. BARNEY.
DUMPING BOAT.

(Application filed June 20, 1899.)

(No Model.)

2 Sheets—Sheet 2.

Fig. 5

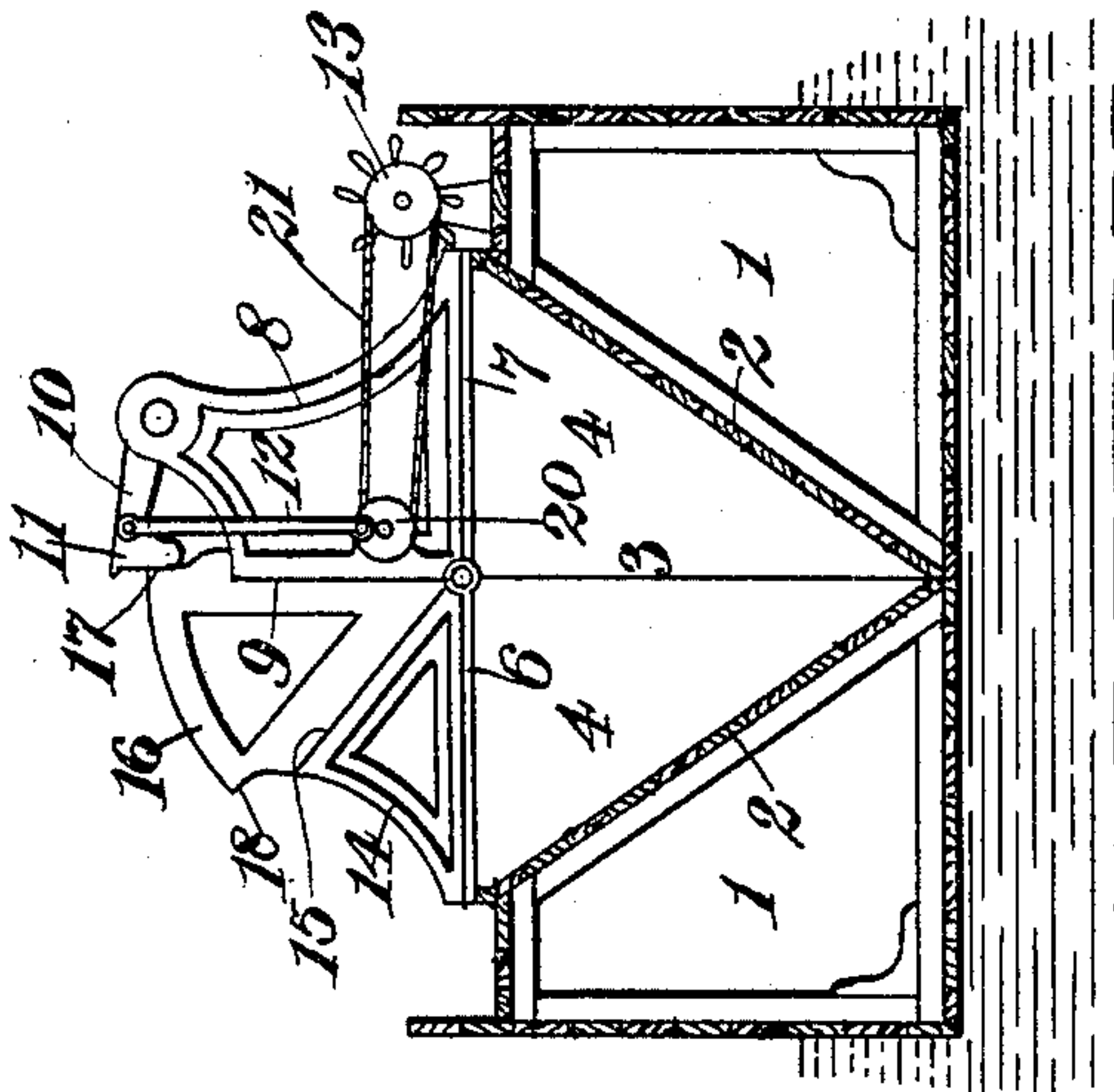


Fig. 4

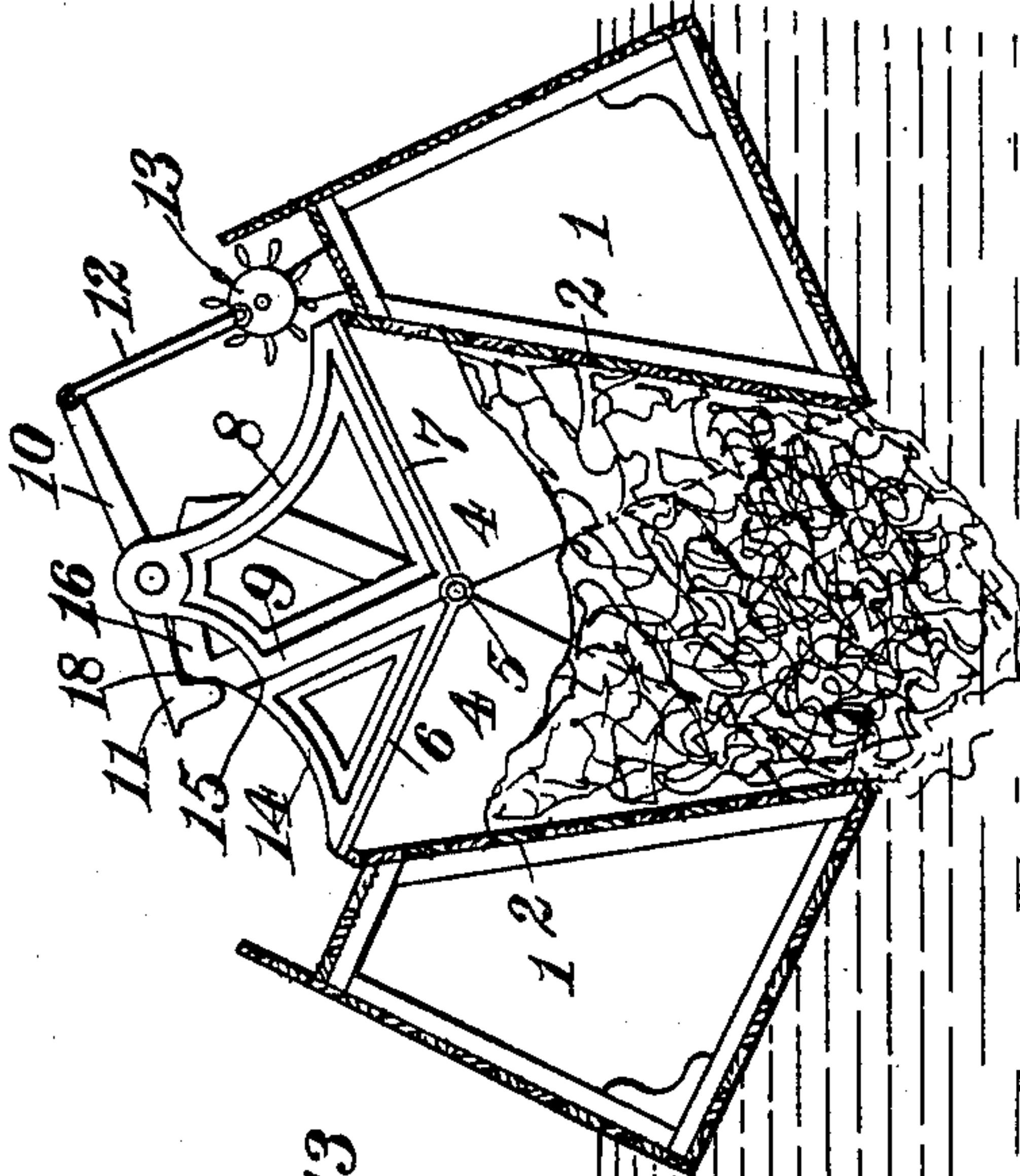


Fig. 3

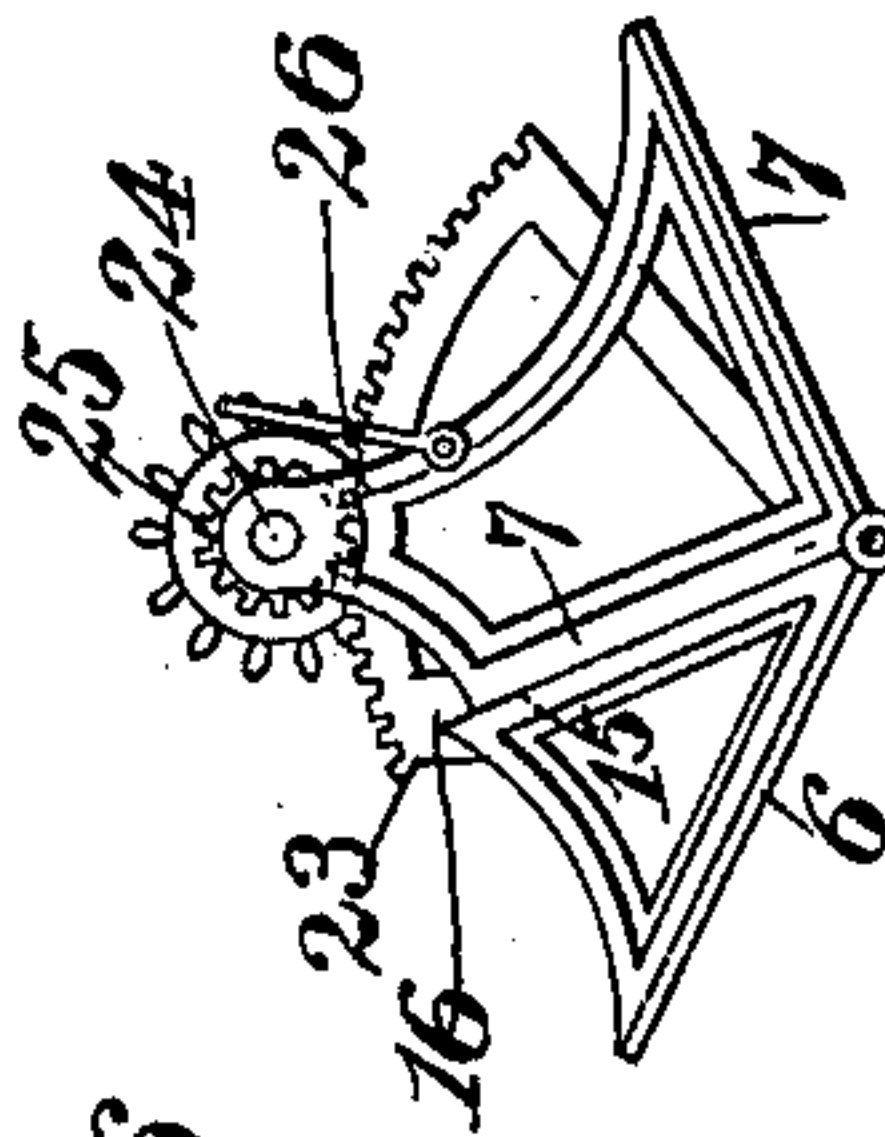
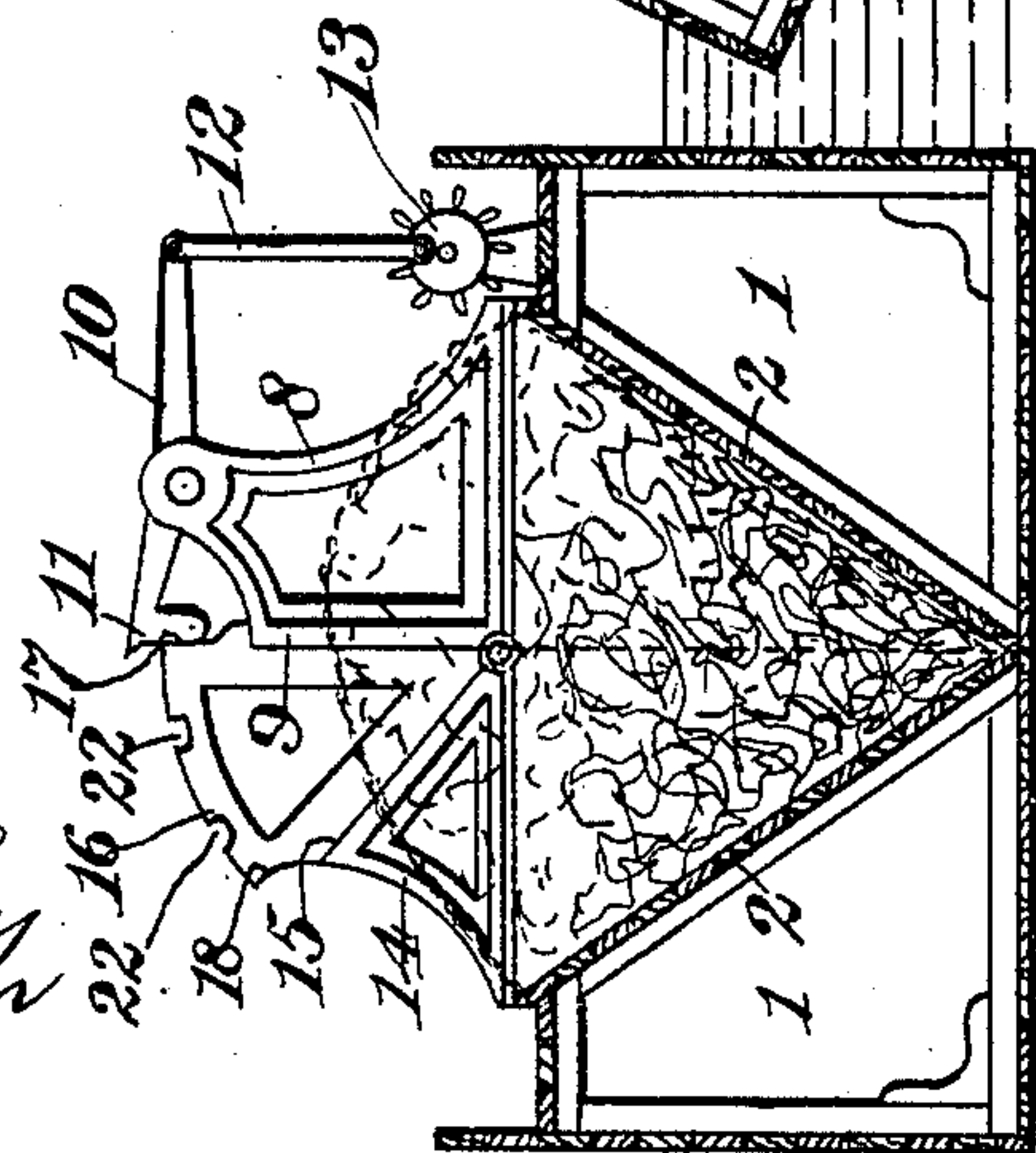


Fig. 6

WITNESSES:

Geo. B. Rowley
Alex. Ferguson

INVENTOR

Walter S. Barney

BY

C. V. Edwards.
ATTORNEY.

UNITED STATES PATENT OFFICE.

WALTER S. BARNEY, OF NEW YORK, N. Y.

DUMPING-BOAT.

SPECIFICATION forming part of Letters Patent No. 649,427, dated May 15, 1900.

Application filed June 20, 1899. Serial No. 721,217. (No model.)

To all whom it may concern:

Be it known that I, WALTER S. BARNEY, a citizen of the United States, residing at New York, in the county of Kings and State of New York, have invented certain new and useful Improvements in Dumping-Boats, of which the following is a full, clear, and exact specification.

This invention relates to dumping-boats; and its object is to provide a boat of simple and economical construction which shall be adapted to dump its load easily and to close without aid from the operator.

The invention relates more particularly to that class of dumping-boats which consist of two pontoons hinged together and adapted to swing apart and allow the load to drop into the water between the parts. Heretofore these pontoons have generally been hinged at their outer edges to the ends of bridges which extend across the top of the boat and the parts have been opened and closed by mechanism either below or on the decks. These features are objectionable for the reason that hinging the parts at their outer sides increases the cost of the boat and also interferes with the carrying capacity, and where the apparatus for operating the pontoons is located below or on the decks it has been found to interfere with the carrying capacity and also to require great power to operate the parts.

According to my invention I propose to provide a boat which shall comprise two pontoons so hinged together that the bridges and closing apparatus below the deck may be dispensed with and so that the boat will possess great strength and be capable of free and easy operation.

The invention possesses various features of advantage, which will be more particularly referred to hereinafter and which will be pointed out in the claims.

In the accompanying drawings, in which I have illustrated forms which the invention may take in practice, Figure 1 is a plan view of a boat constructed in accordance with my invention. Fig. 2 is a side view of the boat shown in Fig. 1. Fig. 3 is a sectional view through one of the bulkheads of the boat, showing the same closed and loaded. Fig. 4

is a similar view showing the boat open and in the act of dropping its load. Fig. 5 is a similar view showing the boat unloaded and closed and also illustrates a modified apparatus for locking the boat, and Fig. 6 is a detail sectional view illustrating a modified form of apparatus for controlling the relative movements of the two pontoons.

Referring more particularly to the drawings, 1 1 represent the two pontoons. These are of any suitable shape or construction, but should preferably be of the type heretofore generally used in these boats—that is, having the inner sides 2 2 of the respective pontoons sloping from the bottom of the pontoon upward and outward, as illustrated in the drawings, so that when the two pontoons are together an open hold 3 will be formed for the reception of the load which the boat is to carry. Each of the pontoons is provided at each end and preferably also at its middle with a bulkhead 4, which extends substantially to the inner side of the pontoon, where it meets a similar bulkhead formed in the opposite pontoon. The two bulkheads are hinged together at the point where they meet by a hinge 5, the straps 6 and 7 of which are securely attached to the respective bulkheads. It will thus be seen that the parts are hinged together at their inner sides, leaving the hold open at the top when the parts are swung together, as shown in Figs. 3 and 5, and being adapted to open outward and downward, leaving a clear open space between the load and the water. Suitable means should be provided to hold the parts together when the load is carried, and such means I have illustrated in the drawings. It will be understood, however, that various devices may be used for this purpose, and I have therefore illustrated three different methods.

In the construction shown in Figs. 3 and 4 I have formed upon the bulkheads standards 8, having a face 9 substantially in line with the middle line of the boat and adapted to carry a lever 10, carrying at one end a catch 11 and connected at the other end by a rod 12 to a wheel 13, whereby when the wheel 13 is turned the catch 11 will be raised and lowered. Upon the bulkhead of the other pontoon is carried a similar standard 14, having

a face 15, adapted to strike against the face 9 when the pontoons are swung apart and prevent further movement, as shown in Fig. 4. The standard 14 also carries a tongue 16, adapted to slide either by the side of or through a slot in the standard 8 and having a face 17, adapted to be engaged by the catch 11 when the boat is closed, as shown in Fig. 3, and a face 18, adapted to be engaged by the catch 11 when the boat is open, as shown in Fig. 4. Preferably each of the bulkheads should be provided with this locking mechanism, and the rods 12 should be connected to a common shaft 19, extending the length of the boat, or to wheels operated by said shaft, thereby making it possible for one man to operate all of the locking and unlocking devices at once.

Instead of connecting the lever 10 directly with the shaft 19, as heretofore described, the rod 12 may be connected near the latch and with a wheel 20, carried by the standard 8, the latter wheel being operated by a band 21, connected to wheel 13. If preferred, one or more notches 22 may be cut in the tongue 16 and adapted to receive the latch 11, thereby enabling the operator to lock the parts in partially-open or partially-closed positions.

If it be preferred that the means for locking the parts shall be adapted to positively open and close the boat, as well as to lock the same, the tongue 16 may be provided with a gear-rack 23, extending the length thereof, as illustrated in Fig. 6, and in the standard 8 may be mounted a pinion 24, engaging the rack 23, and the pinion 24 may be operated by a hand-wheel 25 or other suitable means. The pinion 24 may be prevented from rotating by means of a loop 26, adapted to lock the standard 8 to the wheel, or by any other suitable means.

It will be noted that in each of the constructions above described the standards 8 and 9, rigidly fixed to the respective pontoons and projecting upward therefrom, are employed and that the locking of the pontoons in their various positions and also their operation are adapted to be controlled by controlling the movement of these standards with respect to each other, thereby insuring great strength and power in the operation of the boat.

In the operation of the device if no load is upon the boat the weight of the pontoons will cause them to naturally come together at their lower edges, and in this position the catch 11 is brought into engagement with the face 17 of the tongue 16, and the parts are thus locked together. The load is then placed in the hold in the usual manner, occupying the space between the bulkheads, as is illustrated in Fig. 3. When it is desired to dump the boat, the wheel 13 is turned and the catch 11 raised out of engagement with the face 17, whereupon the weight of the load will force the parts apart, as shown in Fig. 4. When the parts are forced apart, the operator may, if necessary, lower the catch 11 into engagement with

the face 18 or one of the notches 22, and thus hold the parts open until all of the load has dropped out. As soon as catch 11 is released from face 18 the parts will again close. If the boat be provided with the mechanism shown in Fig. 6, the operator will simply release the loop 26 and allow the pinion 24 to turn freely.

It will be observed that in the boat above described but few parts are necessary, and the construction is therefore extremely simple. It will also be observed that by reason of the fact that the parts are hinged at their inner sides instead of at their outer sides, as has heretofore been customary, the boat may be made much wider, and thus increase the carrying capacity without decreasing the strength of the boat.

I believe myself to be the first to control the movement of the two pontoons with respect to each other by means of standards rigidly fixed to the pontoons and means for locking or causing movement of one standard by the force exerted from or upon the other standard, and I desire to cover this feature broadly.

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

1. In a dumping-boat, the combination of two counterpart pontoons suitably hinged to swing together to form a boat, a standard carried by each of said pontoons and projecting above the deck thereof, said standards being immovable with respect to the pontoon carrying them, and means carried by said standards for preventing movement of the same relative to each other, substantially as described.

2. In a dumping-boat the combination of two counterpart pontoons suitably hinged to swing together to form a boat, a standard carried by each of said pontoons and projecting above the deck thereof, said standards being immovable with respect to the pontoon carrying them, and means carried by said standards for moving the same relative to each other, and thereby moving said pontoons, substantially as described.

3. In a dumping-boat the combination of two pontoons hinged together at their upper longitudinal edges and adapted to swing upward and outward whereby said boat will open downward, a standard carried by each of said pontoons and projecting upward therefrom, said standards being immovable with respect to the pontoon carrying them, and means connected with the upper ends of the respective standards and adapted to control the movement of the same relative to each other, whereby said boat may be opened and closed, substantially as described.

4. In a dumping-boat, the combination of two pontoons hinged together at their inner sides and adapted to swing upward and outward, a standard carried by one of said pontoons provided with a rack, a pinion mounted upon a suitable part of the other pontoon and

adapted to engage said rack, and means for controlling the rotation of said pinion, substantially as described.

5 5. In a dumping-boat, the combination of two pontoons hinged together at their inner sides and adapted to swing upward and outward, a standard mounted on each of said pontoons near said hinge, said standards being adapted to cross each other when the pon-

toons are open, and means for controlling the movement of said standards relative to each other, substantially as described.

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

WALTER S. BARNEY.

Witnesses:

NATHAN BARNEY,

C. V. EDWARDS.