

J. H. MARTIN.
FLUME CONSTRUCTION.
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1,044,463.

Patented Nov. 12, 1912.

Fig. 1.

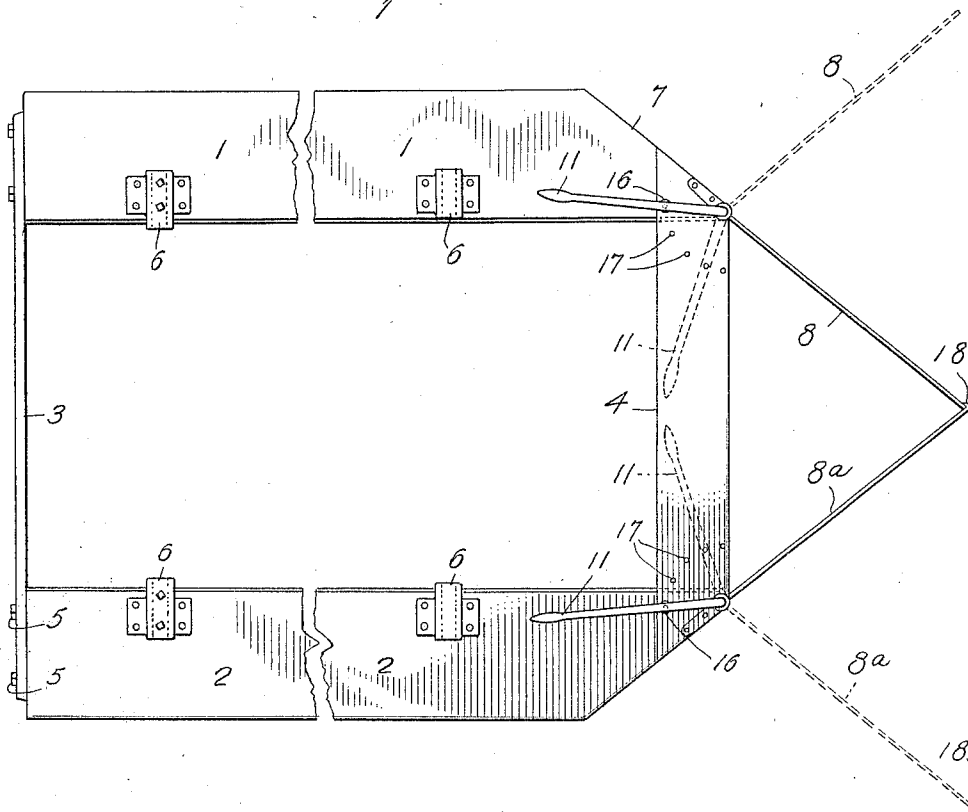
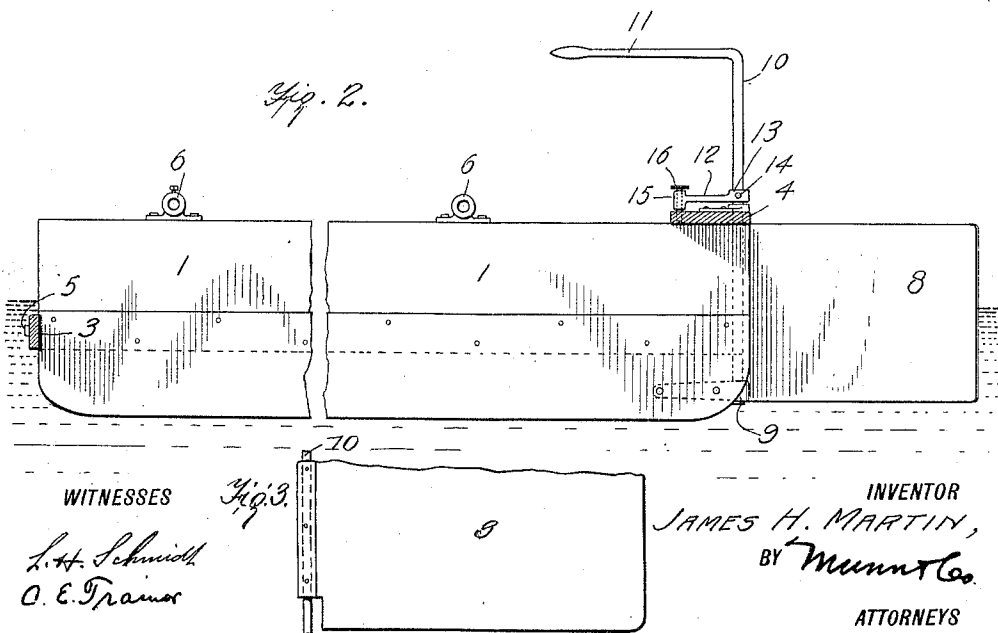


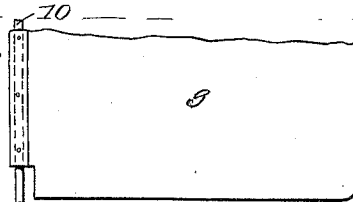
Fig. 2.



WITNESSES

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Fig. 3.



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FLUME CONSTRUCTION.

1,044,463.

Specification of Letters Patent.

Patented Nov. 12, 1912.

Original application filed November 22, 1911, Serial No. 661,662. Divided and this application filed April 19, 1912. Serial No. 691,844.

To all whom it may concern:

Be it known that I, JAMES H. MARTIN, a citizen of the United States, and a resident of Springfield, in the county of Greene and State of Missouri, have made certain new and useful Improvements in Flume Construction, of which the following is a specification.

My invention is an improvement in flume construction, and has for its object the provision of a simple, inexpensive, easily operated device of the character specified, especially adapted for use with current motors of the character shown and described in my co-pending application Serial No. 661,662, filed Nov. 22, 1911, of which the present case is a division, wherein a support is provided for the motor and in addition means for concentrating the current on the waves of the motor, and wherein means is provided for cutting off the current partly or entirely from the motor, and for fending drift or the like that might strike and injure the motor.

In the drawings: Figure 1 is a plan view of the improvement, Fig. 2 is a longitudinal vertical section and Fig. 3 is a partial side view of one of the gates.

The present embodiment of the invention comprises a pair of parallel, laterally spaced floats or buoys 1 and 2, connected at their rear ends by a cross bar 3, and at their front ends by a plate 4. The cross bar 3 is arranged below the water level, and is secured to the buoys by bolts 5 or the like. The buoys, in the present instance are hollow floats, rectangular in cross section, and each buoy has a plurality of bearings 6 on its upper face, for supporting the shafts of the motor, (not shown). The front ends of the buoys are beveled at their outer corner, as indicated at 7, and the plate 4 is secured to the upper faces of the buoys.

The ends of the plate are beveled, as shown in Fig. 1, to fit the buoys, and a gate 8—8^a is hinged to the front end of each of the said buoys. Each of the gates is a plate of a width equal approximately to the depth of the buoy, and of such length that when the free ends of the gates are in contact, the gates will stand at approximately a right angle to each other. Each gate is connected to one of the buoys, by means of hinges 9, and a shaft or rod 10 is rigidly connected to each of the gates, so that when

the rod is oscillated the gate will be swung therewith. The shafts 10 are the pivots connecting the leaves of the hinges, and each shaft has an angular arm 11 at its upper end. An arm 12 is connected to each shaft, each arm having a bearing 13 at one end engaging the shaft, and held fixed thereon by a set screw 14. The other end of each arm is provided with a bearing sleeve 15, in which is movable a pin 16. The adjacent end of the plate 4 is provided with a series of openings 17, and each series is arranged in an arc, having its center at the adjacent shaft. One of the gates 8^a is provided with a transverse rib 18 at its free end, for engaging outside of the free edge of the gate 8, when the gates are closed.

In use, the gates may be swung by means of the angular arms or handles 11 on the shafts, and may be held in fixed position by means of the pins 16. The pin is lifted to disengage it from the openings, after which the shaft may be freely oscillated. The gates may be swung into the dotted line position of Fig. 1, and when in this position they act to deflect the water inwardly, to make a stronger fuller current. They may occupy a position more nearly parallel to the long axis of the float, and may be partially closed to fend drift. When it is desired to stop the operation of the motor, the gates may be moved into the full line position of Fig. 1. In this position the passage between the floats or buoys is closed, and the current is cut off from the motor. The floats may be anchored in any suitable manner.

I claim:—

1. A flume construction comprising spaced floats arranged alongside each other in parallel relation, a cross bar connecting the floats at their rear ends, a plate connecting the front ends of the floats and secured to the upper faces thereof, each float having its front end beveled at its outer side, a gate hinged to the front end of each float, said gates being of a width approximately equal to the height of the floats and being of a length greater than one half the distance between the floats so that when the outer ends of the gates are in contact said gates will stand at approximately a right angle to each other, a shaft rigid with each gate at the hinge connection, each shaft extending above the float and having an an-

gular handle at its upper end, a radial arm on each shaft adjacent to the float, each arm having a vertical bearing sleeve at its outer end, and a pin slidable in each sleeve, 5 each float having an arc-shaped series of openings for engagement by the pin of the adjacent arm to hold the gate in adjusted position, one of the gates having a transverse rib at its outer end fitting outside the 10 end of the other gate when said gates are closed.

2. A flume construction comprising spaced floats arranged alongside each other in parallel relation, a rigid connection between 15 the floats, a gate hinged to the front end of each float, said gates being of a width approximately equal to the height of the floats and being of a length greater than one half the distance between the floats so 20 that when the outer ends of the gates are in contact said gates will stand at approximately a right angle to each other, a shaft rigid with each gate at the hinge connection, each shaft extending above the float 25 and having an angular handle at its upper end, a radial arm on each shaft adjacent to the float, each arm having a vertical bearing sleeve at its outer end, and a pin slidable in each sleeve, each float having an 30 arc-shaped series of openings for engagement by the pin of the adjacent arm to hold the gate in adjusted position.

3. A flume construction comprising spaced floats arranged alongside each other in parallel relation, a rigid connection between the 35 floats, a gate hinged to the front end of each float, said gates being of a width approximately equal to the height of the floats and being of a length greater than one half 40 the distance between the floats so that when the outer ends of the gates are in contact said gates will stand at approximately a right angle to each other, and a shaft rigid with each gate at the hinge connection, each

shaft extending above the float and having 45 an angular handle at its upper end.

4. A flume construction comprising laterally spaced rigidly connected floats forming a passage between the same, a gate 50 hinged to the front end of each float, said gates being of greater aggregate length than the distance between the floats to form a peak in front of the flume when the gates 55 are closed, a shaft rigid with each gate at its hinged connection, each shaft extending above the float and having an angular handle at its upper end, and means for locking each gate in adjusted position, one of 60 the gates having a transverse stop fitting outside the end of the other gate when the gates are closed.

5. A flume construction comprising laterally spaced rigidly connected floats forming a passage between the same, a gate hinged 65 to the front end of each float, said gates being of greater aggregate length than the distance between the floats to form a peak in front of the flume when the gates are closed, a shaft rigid with each gate at its 70 hinged connection, each shaft extending above the float and having an angular handle at its upper end, and means for locking each gate in adjusted position.

6. A flume construction comprising laterally spaced rigidly connected floats forming 75 a passage between the same, a gate hinged to the front end of each float, said gates being of greater aggregate length than the distance between the floats to form a peak in front of the flume when the gates 80 are closed, a shaft rigid with each gate at its hinged connection, for swinging the gate, and means for locking each gate in adjusted position.

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Witnesses:

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