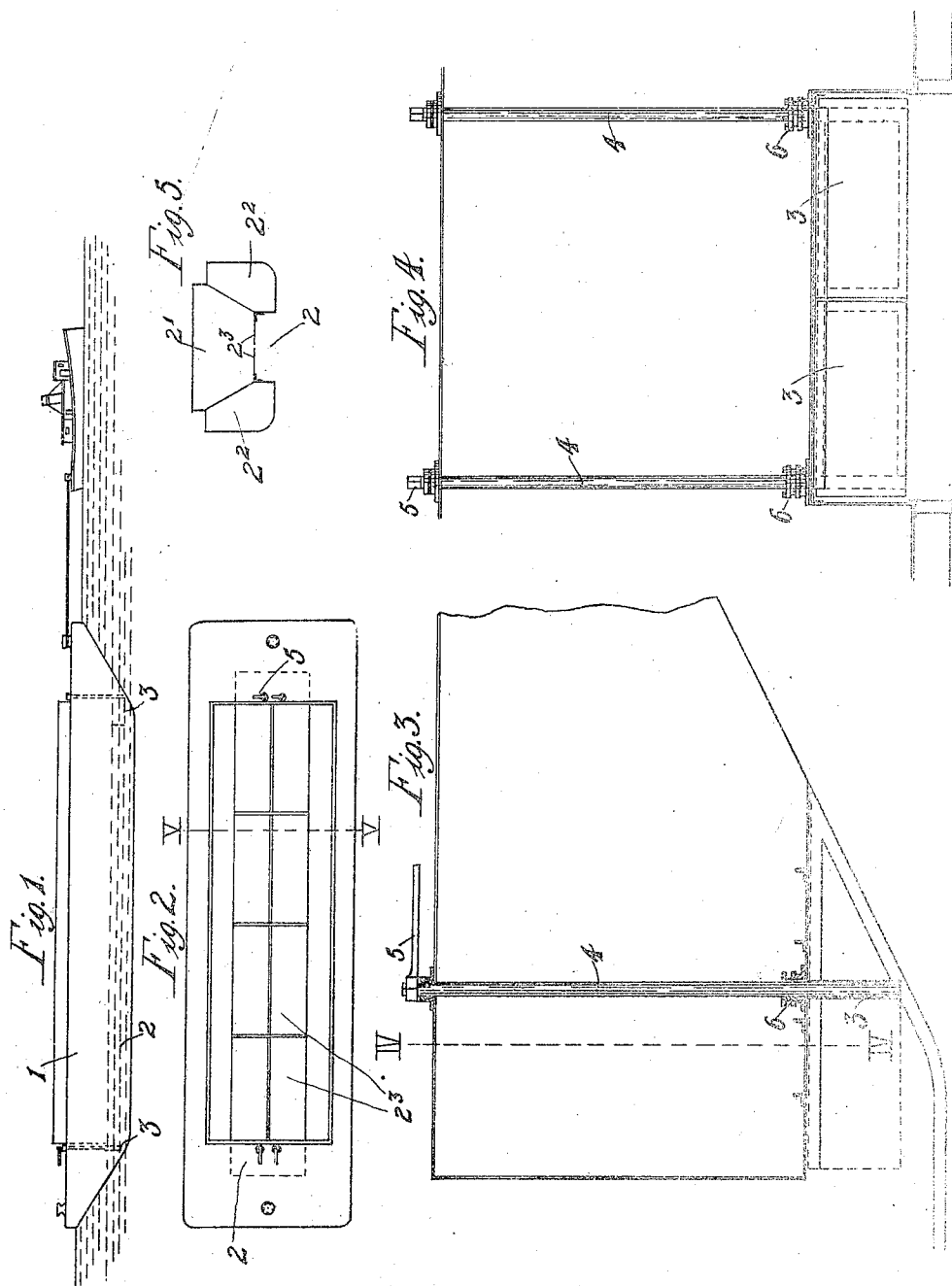


E. GUNNELL.
ANTIDRIFTING DEVICE.
APPLICATION FILED MAR. 5, 1909.

942,855.

Patented Dec. 7, 1900.



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Specification of Letters Patent.

Patented Dec. 7, 1909.

Original application filed November 20, 1907, Serial No. 403,014. Divided and this application filed March 5, 1908. Serial No. 421,393.

To all whom it may concern:

Be it known that I, ELIAS GUNNELL, a citizen of the United States, residing at Manitowoc, in the county of Manitowoc and State of Wisconsin, have invented certain new and useful Improvements in Antidrift- ing Devices, of which the following is a specification.

The invention relates to anti-drifting de- vices of the general type shown in my co- pending application Serial Number 403,014, of which the present application is a divi- sion, the subject matter hereof being shown and described in such co-pending applica- tion. The principal objects of the invention are the provision of a simple form of device which may be easily and conveniently oper- ated from the deck of the scow; the provi- sion of sectional retarding means so that the device may be operated in part instead of as a whole if desired; and the provision of a simple form of retarding device which may be utilized in controlling and steering the scow. One embodiment of the invention is illustrated in the accompanying drawings, wherein:—

Figure 1 is a side elevation of the scow provided with my invention together with a towing tug attached thereto

Figure 2 is a plan view of the scow,

Figure 3 is an enlarged longitudinal sec- tion through the end of the scow,

Figure 4 is a transverse section on the line IV—IV of Figure 3, and

Figure 5 is a transverse section through the scow on the line V—V of Figure 2.

Referring to the drawing, 1 is the scow which is of the ordinary type and comprises a pair of side portions or buoyant chambers 2^a—2^b connected together by bulk-heads and divisional walls forming a pocket 2' (Figure 5), which extends lengthwise of the scow and into which the material is to be dumped or loaded. Extending the entire length of the scow and intermediate the pontoons is the usual well 2, into which the material loaded in the pontoons is finally dumped through the swinging doors 2^a—2^b. It is in this well or passage that my anti-drifting device is located. This device consists of a pair of swinging flaps 3, which flaps are lo- cated at both ends of the scow, and are adapted to lie either in the position shown

in Figures 3, and 4, at which time they ex- tend across the well and act as retarding de- vices, or in positions at right angles to that occupied in Figures 3 and 4, at which time they will lie against the sides of the wall and permit the free passage of the water there- through. The flaps are operable from the deck of the scow by means of the shafts 4—4 carrying at their upper ends the opera- ting levers 5—5. Stuffing boxes 6—6 are provided in the bottom of the scow in order to make a tight connection between such bot- tom and the shafts 4—4. It will be under- stood that the flaps at the rear end of the scow are placed in operative position when the scow is going ahead, and at this time the flaps at the front end of the scow are open or in inoperative position to permit the free passage of water through the well 2, and when the direction of movement of the scow is reversed the positions of the flaps at the ends are reversed.

From the foregoing it will be seen that a very simple and effective construction is pro- vided. The shafts 4—4 serve the double function of supporting and turning the flaps 3—3, and the use of cumbersome and ex- pensive operating mechanism is thus avoided. Under certain conditions it may be found that one of the flaps 3 will give the desired amount of retardation, in which case the other flap is left folded, and an undue and unnecessary amount of resistance to the movement of the scow through the water is avoided. It will also be seen that by the use of two flaps instead of a single one, the power necessary to turn the flaps to opera- tive position when the scow is moving ahead is reduced, which arrangement lessens the labor in operation and reduces the twisting strain on the operating parts. If desired the flaps 3—3 may be operated after the manner of rudders, the distances of the axes 4—4 from the center line of the scow giving the flaps a powerful steering effect when operated separately. The location of the flaps 3—3 in the well 2 is also desirable, as they are thus largely surrounded by the body of the scow, and protected from injury due to obstructions or to the bottom of the boat coming into contact with the surface over which the scow passes.

Having thus described my invention and

illustrated its uses, what I claim as new and desire to secure by Letters Patent is the following:—

1. The combination with a scow having an
5 open bottomed dumping well extending
throughout its length, of an anti-drifting
flap hinged on a vertical axis and lying in
the well, and means whereby the flap may be
held in a position transverse to the well. }
- 10 2. The combination with a scow having
an open bottomed dumping well extending
throughout its length, of an anti-drifting
flap hinged at the edge of the well on a
vertical operating shaft and means for turn-
15 ing the flap to a position transverse to the
well.
3. The combination with a scow having
an opened bottomed dumping well extend-
ing throughout its length, of an operating
20 shaft extending from the deck of the scow
to the well, and an anti-drifting flap mount-
ed on the shaft and lying in the well.
4. The combination with a scow having
an open bottomed dumping well extending
25 throughout its length, of a pair of operating

shafts extending from the deck of the scow
to opposite sides of the well, and a retard-
ing flap on each shaft.

5. The combination with a scow having
an open bottomed dumping well extending
30 throughout its length, of anti-drifting flaps
hinged on vertical axes on opposite sides of
the well and means whereby the flaps may
be held in positions transverse to the well.

6. The combination with a scow having 35
an open bottomed dumping well extending
throughout its length, of a pair of anti-
drifting flaps hinged on vertical axes lying
opposite each other at the edges of the well
and extending when open to approximately 40
the center line of the scow and means for
swinging the flaps to any desired position.

In testimony whereof I have hereunto
signed my name in the presence of the two
subscribed witnesses.

E. GUNNELL.

Witnesses:

J. A. WILLIAMS,
N. A. KNUDSON.