C. J. FOGELMARK, Sr.

BAILING MECHANISM.

APPLICATION FILED OCT. 25, 1909.

960,221.

Patented May 31, 1910.

2 SHEETS—SHEET 1.

Fig. 1.

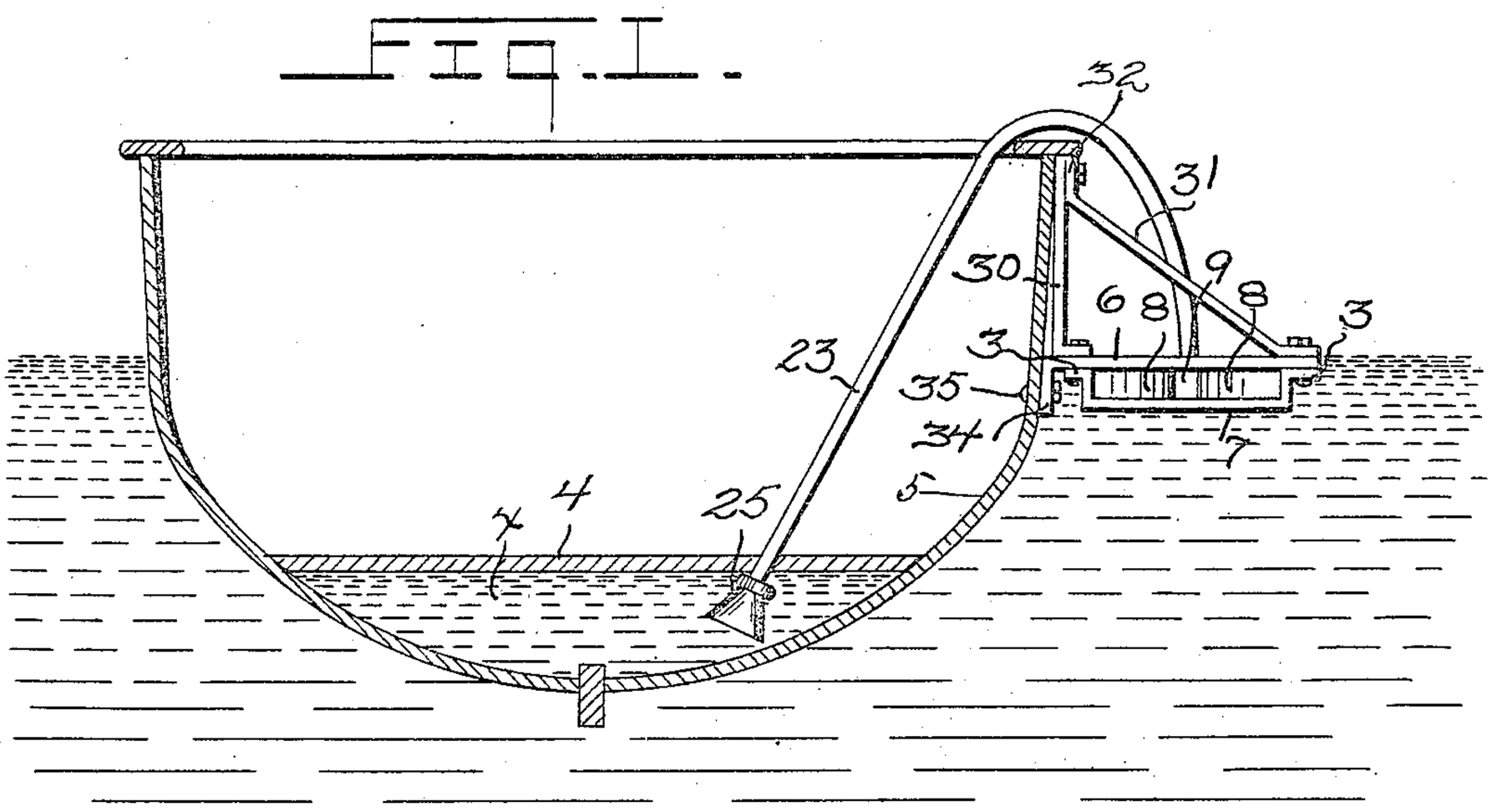
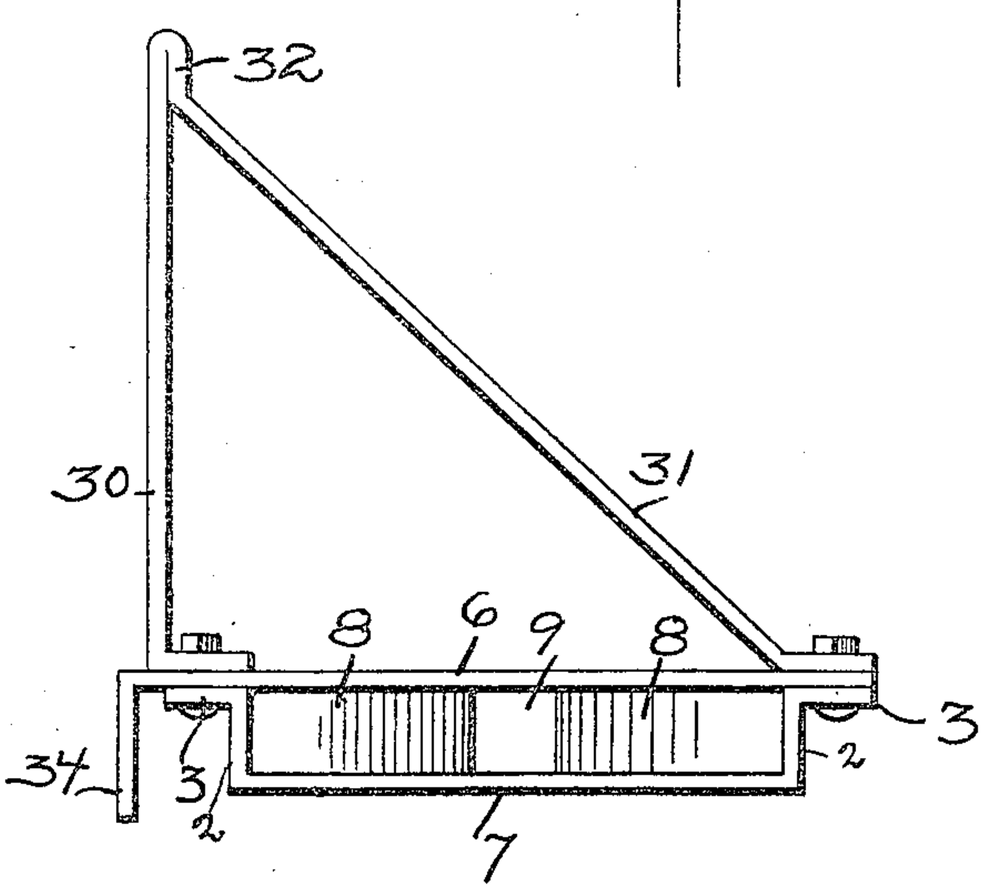


Fig. 2.



Witnesses

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2 SHEETS—SHEET 2.

FIG. 4.

FIG. 5.

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UNITED STATES PATENT OFFICE.

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BAILING MECHANISM.

960,221. Specification of Letters Patent. Patented May 31, 1910.

Application filed October 25, 1909. Serial No. 524,448.

To all whom it may concern:

Be it known that I, CARL J. FOGELMARK, Sr., a citizen of the United States, residing at Excelsior, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Bailing Mechanism, of which the following is a specification.

This invention relates to an automatic bailing mechanism to be used in connection with boats and vessels.

The object of my invention is to provide a simply constructed device, arranged to be secured to the side or bottom of a boat or vessel, so that as the boat is propelled, the mechanism will automatically operate to drain the bilge water from the boat or vessel.

With the above and other objects in view, the present invention consists in the combination and arrangement of parts as will be hereinafter more fully described and particularly pointed out in the appended claims, it being understood that changes in the specific structure shown and described may be made within the scope of the claims without departing from the spirit of the invention.

In the drawings forming a part of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 shows a central sectional view of a vessel disclosing my automatic drainer as attached. Fig. 2 shows an enlarged detached detail end view of the mechanism. Fig. 3 shows a longitudinal sectional view. Fig. 4 shows a horizontal sectional view. Fig. 5 shows a bottom view.

In the accompanying drawings the numeral 5 designates the body of the vessel, 4 the floor, and *x* the bilge water which is to be automatically drained from below the floor.

My automatic bailing mechanism is shown as secured to the side of the vessel in Fig. 1, and comprises the top plate 6, to which the housing forming bottom plate 7 is fastened, having the securing flanges 3. These securing flanges extend along the opposite side of the bottom forming plate and extend the full length of the top plate 6.

Held between the sides 2 of the housing forming plate, are the metal strips 8, which are vertically secured between the top plate 6 and the bottom plate 7 in such a manner as to provide an approximately V-shaped intake chamber, which gradually decreases in capacity and ends in a narrow straight channel 9, formed by the flange strips 8. As shown at 16, the strips are bent laterally in opposite direction and are then continued in parallel relation to form an enlarged chamber 11 of a capacity considerably less, however, than the intake chamber. As shown, this intake opening extends the full width of the housing. The top plate 6 is provided with an aperture 13, from which rearwardly and obliquely extends the pipe or tube 20, which at its upper end is provided with a check valve 21 from which extends the drain tube 23, at its bottom being provided with the enlargement or funnel 25. This funnel 25 is positioned below the flooring of the vessel and immersed in the bilge water to be drained from the vessel.

Extending from the top plate 6, are the hangers 30 and the brackets 31, which at their upper ends are provided with the apertured enlargement 32, through which suitable screws or bolts are passed in securing the device to the side of the vessel. Extending from the housing forming plate 8, is the securing flange 34 having suitable apertures through which the securing bolt 35 extends, so that the device may be secured along its lower edge.

While I have described my bailing mechanism as secured to the sides of a vessel it should be understood that the same may be secured to the bottom of a vessel.

The operation of my device is very simple. In the movement of a vessel after a certain speed has been obtained, the water rushing into the intake chamber is forced through the confining channel 9 and then escaping into the slightly enlarged terminal chamber 11, from which it rushes, creates a vacuum in said enlarged chamber 11. As the drain pipe 23 is in communication with this vacuum chamber 11, the check valve 21 is unseated so that finally a column of water is drawn through the tube 23. As this column of water is taken from that collected within the bottom of the boat, the boat thereby is automatically bailed. After all the bilge water has been removed, the water column is, of course, broken. Where the pipe is extended over the sides of the vessel or enters the vessel at a point higher than the water level, the check valve 21 may be dispensed with. However, where the drain-

ing mechanism is secured to the bottom of a vessel this check valve is necessary.

The device is simple and inexpensive in construction and both durable and efficient in operation.

Having thus described my said invention, what is claimed is:

1. An automatic boat bailing mechanism, including a housing having a longitudinally disposed channel including an intake chamber of gradually decreasing capacity ending in a straight comparatively narrow channel in turn terminating in an enlarged chamber of a capacity considerably less than said intake chamber, said housing having an aperture above said enlarged chamber, and a drain pipe extending from said aperture.

2. An automatic boat bailing mechanism including a housing having an intake chamber of gradually decreasing capacity communicating with a straight narrow channel ending in an enlarged chamber with an aperture communicating therewith, of a drain pipe extending from said chamber, and a check valve within said drain pipe.

3. An automatic boat bailing mechanism including a housing having an intake chamber of gradually decreasing capacity communicating with a straight narrow channel ending in an enlarged chamber with an aperture communicating therewith, and a drain pipe extending from said chamber.

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

CARL J. FOGELMARK, Sr.

Witnesses:

G. H. Smith,

Geo. P. Dickinson.