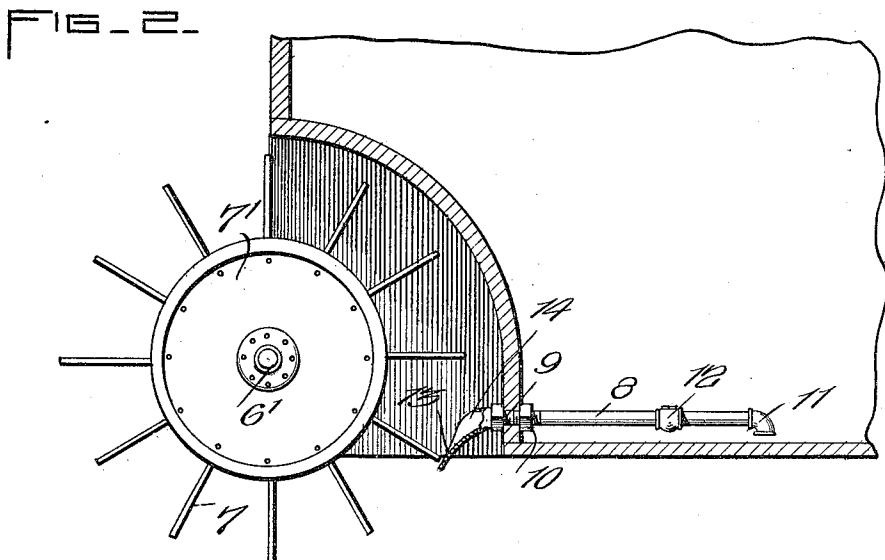
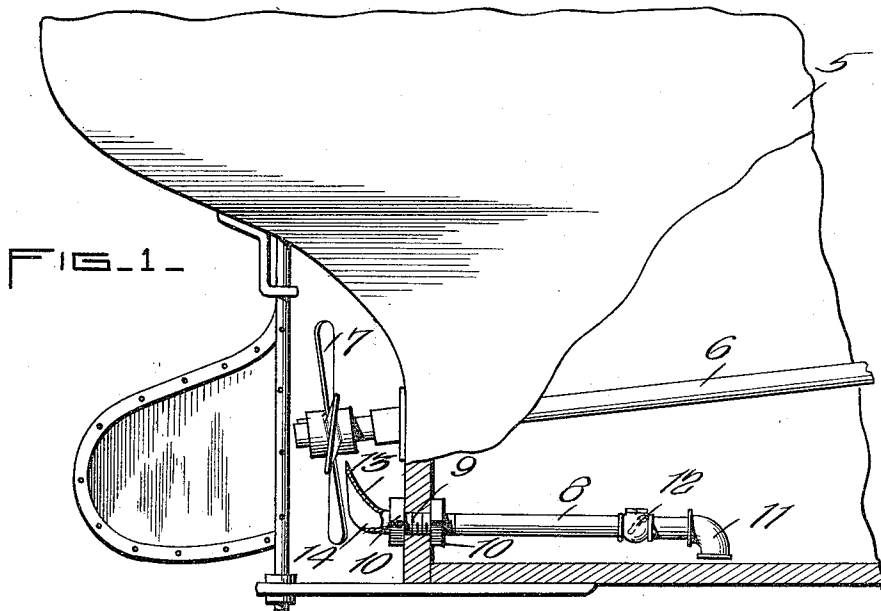


S. S. JAMISON.  
 BILGE WATER EXTRACTOR.  
 APPLICATION FILED APR. 21, 1915.

1,159,946.

Patented Nov. 9, 1915.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

SAMUEL STEWART JAMISON, OF SALTSBURG, PENNSYLVANIA.

## BILGE-WATER EXTRACTOR.

1,159,946.

Specification of Letters Patent.

Patented Nov. 9, 1915.

Application filed April 21, 1915. Serial No. 22,823.

*To all whom it may concern:*

Be it known that I, SAMUEL S. JAMISON, a citizen of the United States, and a resident of Saltsburg, in the county of Indiana and State of Pennsylvania, have invented an Improvement in Bilge-Water Extractors, of which the following is a specification.

This invention relates to boats and more particularly to motor boats and the means for ejecting bilge water from the hulls thereof while the same are in motion.

The invention is also adapted for use in the extraction of smoke and foul air.

Heretofore, bilge ejecting devices have been constructed wherein an outlet and the means for withdrawing the bilge water are arranged upon the bottom of the vessel, thus breaking the smooth or uniform surface thereof, it being necessary, in structures of this kind, to rely entirely upon the current of the water to create the suction necessary to the withdrawal of the bilge water from the hull. It is a well known fact that obstructions of any kind on the bottom of the vessel will greatly retard the speed thereof and hence a construction such as mentioned would be an objectionable feature when applied to a vessel.

One of the objects of this invention is to overcome the above objection by so arranging the ejecting means that the discharge end thereof will be adjacent the propeller in order that the action of the latter on the water will, together with the current when the vessel is in motion, create sufficient suction in the ejecting or bilge pipe to withdraw the water from the interior of the vessel without retarding the speed thereof.

Another object of the invention is the provision of a device of this character which may be readily applied to any vessel, and which, when in position, will not detract from the appearance thereof.

A still further object of the invention is to provide an ejecting device of this character which is extremely simple in construction, efficient in carrying out the purpose for which it is designed and one which may be manufactured at a minimum cost.

The inventive idea involved is capable of receiving a variety of mechanical expressions one of which, for the purpose of illustrating the invention, is shown in the accompanying drawing, in which—

Figure 1 is a fragmentary side elevation, partly broken away, of a vessel of ordinary

construction showing the application of the present invention thereto. Fig. 2 is a fragmentary vertical longitudinal section of a vessel propelled by a paddle wheel located in the stern thereof with the invention applied thereto.

Referring more particularly to the accompanying drawing and especially to Fig. 1 thereof, the numeral 5 indicates the hull of a boat or vessel of any ordinary construction having mounted therein the shaft 6 with the propeller blades 7 mounted on the end thereof.

The bilge water ejecting device which comprises the essential feature of this invention includes the bilge pipe 8 which extends through an opening 9 in the stern of the vessel adjacent the keel thereof and is secured in a substantially horizontal position by means of the fastening devices 10 in the form of nuts or other suitable means arranged on each side of the stern whereby any leakage through the opening 9 is prevented. The inner end of the pipe 8 is provided with an elbow 11 which extends downwardly into the bilge of the vessel so that the inlet for the pipe 8 will be submerged should there be any water in the bilge. Adjacent the inner end of the pipe 8 is provided with a check valve 12 of any ordinary construction, the purpose of said valve being to prevent water entering the outlet of the pipe 8 and flowing into the bilge when the vessel is not under way. The outer or outlet end 13 of the pipe 8 is preferably made of a flared or substantially funnel shaped formation, the lower edge thereof being cut away as indicated at 14. Said end 13 is arranged adjacent the propeller blades 7 so that when the latter are rotating they will have the effect of producing a partial vacuum in the pipe 8 and a consequent suction therein, which will cause the check valve 12 to open and permit the bilge water to pass outwardly through said pipe and outlet end 13.

In Fig. 2 there is shown the application of the invention to a paddle wheel propelled vessel, in which 6' indicates the propeller shaft having mounted thereon the paddle wheel 7' of any ordinary construction. The bilge water ejecting device is of the same construction as that described in connection with Fig. 1 and has its outlet 13 arranged adjacent the paddles of the wheel 7' in order that the same action and result as de-

scribed above will be obtained. It will thus be apparent from the foregoing description that the means for propelling the vessel forward is also utilized in ejecting the water from the bilge thereof, thus automatically producing the desired result without any additional expense.

I claim:—

10 In a vessel, the combination of a propeller, a bilge pipe having a threaded portion adjacent one end adapted to be mounted in the stern post of the vessel, said pipe ex-

tending a short distance into the vessel and having a downwardly extending inner end, a check valve intermediate the ends of said pipe, nuts on the threaded portion of said pipe and engaging the stern post on each side thereof, and a flared outlet end arranged adjacent said propeller and having a portion thereof cut away. 15

SAMUEL STEWART JAMISON.

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."