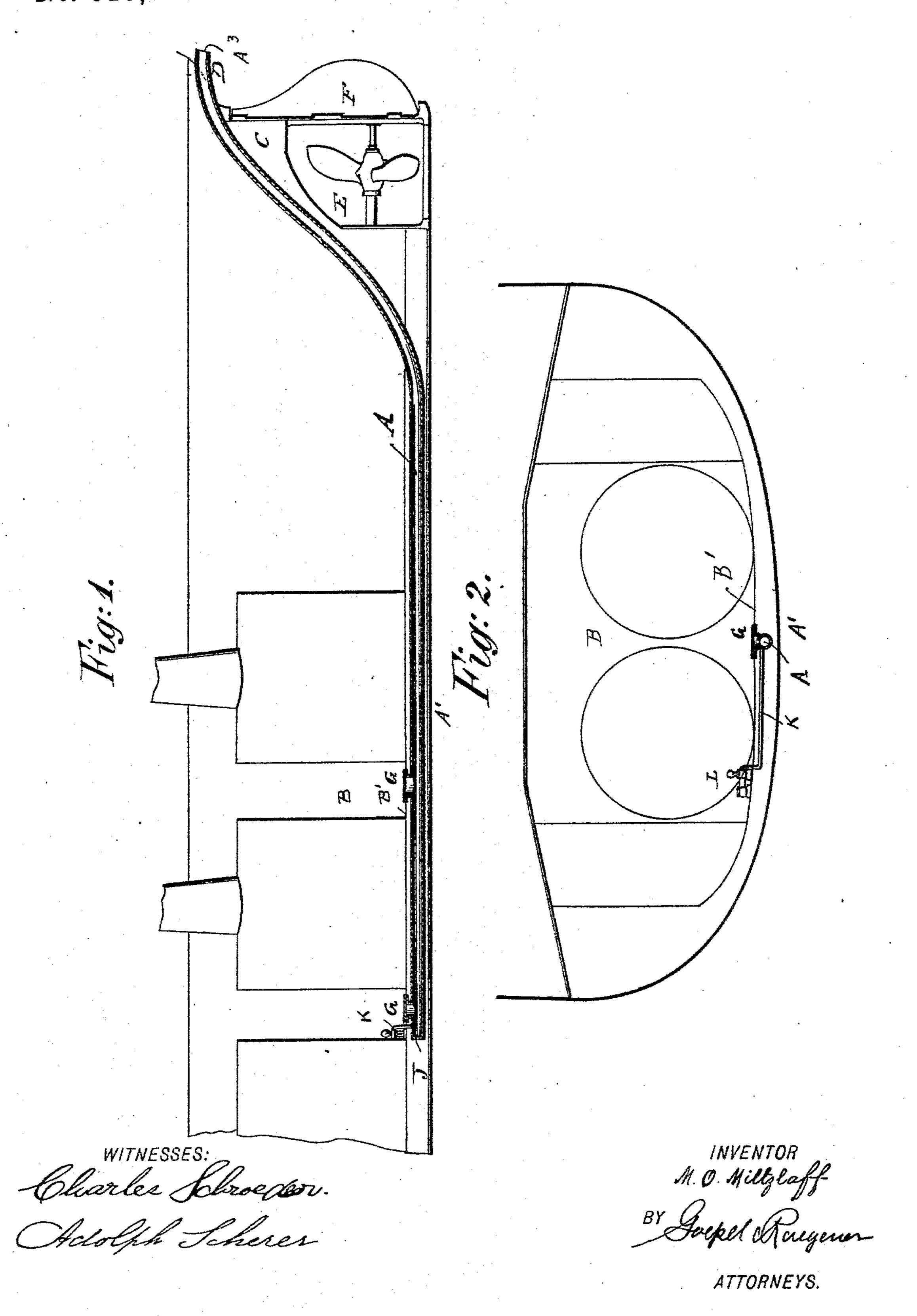
(No Model.)

M.O. MILTZLAFF.

DEVICE FOR REMOVING ASHES FROM MARINE STEAM VESSELS.

No. 515,480.

Patented Feb. 27, 1894.



## United States Patent Office.

MAX O. MILTZLAFF, OF EGGESIN, GERMANY.

DEVICE FOR REMOVING ASHES FROM MARINE STEAM-VESSELS.

SPECIFICATION forming part of Letters Patent No. 515,480, dated February 27, 1894.

Application filed March 8, 1893. Serial No. 465,112. (No model.)

To all whom it may concern:

Be it known that I, MAX O. MILTZLAFF, a subject of the Emperor of Germany, and a resident of Eggesin, Germany, have invented certain new and useful Improvements in Devices for Removing Ashes from Marine Steam-Vessels, of which the following is a specification.

Heretofore it has been customary to hoist to the ashes from the furnace rooms of steamers to the deck and dump them overboard, also to eject them by means of steam or water through pipes extending from the boiler room to the side of the vessel; but these arrange-15 ments had the great disadvantages that the wind frequently drove the ashes against the sides of the vessel and on deck, defacing both and scraping the paint, and the ashes also floated on the surface of the water and com-20 ing in contact with the ends of the propeller blades injured the latter materially. Attempts have also been made to discharge the ashes through a well-hole in the ship's bottom, but in this case the ashes slide along at 25 the sides of the keel and wear off the plates of the ship's bottom.

The object of my invention is to provide a new and improved device for removing the ashes from one or more boiler rooms in a steamer, rapidly, at a small expense, and in such a manner that the vessel is not defaced or injured, and the ashes cannot come in contact with the propeller.

The invention consists in an ash conveying tube arranged above the bottom of the steam vessel and extending from the furnace rooms to the stern of the vessel.

The invention also consists in the combination with said tube of a well-hole in each furnace room and a pipe for forcing steam or water into the tube.

In the accompanying drawings, Figure 1 is a longitudinal sectional view of part of a steamer provided with my improved device for removing ashes, and Fig. 2 is a vertical transverse sectional view, on the line 2 2, Fig. 1.

Similar letters of reference indicate corresponding parts.

A tube A is arranged between the ship's 50 bottom A' and the floor B' of the furnace or boiler rooms B and extends from the same along the ship's bottom to the stern C, where it is carried upward to a point D above and beyond the propeller E and rudder F, so that 55 the ashes ejected through the rear end of the said tube cannot come in contact with the propeller or sides of the vessel but drop into the water behind the propeller.

In the furnace room floor B' a well hole G 60 is arranged in each furnace room, which wellhole can be closed by a cover H that fits air and water tight. The end J of the tube is closed and at said end a pipe K leads into the said tube A, which pipe is connected with a 65 force pump L or with a boiler. Whenever ashes are to be discharged the corresponding well-hole is opened and the ashes dumped into the same and steam or water under pressure admitted into the tube A, which steam or 70 water carries the ashes through the tube A and discharges them at the rear open end A<sup>3</sup>. The ashes can thus be removed very rapidly, require no further handling, no complicated machinery is required, no valuable space is 75 used for the ash removing device and no extra help is required for removing the ashes.

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

A marine vessel, having an ash-conducting chute extending along the bottom of the vessel, from the furnace room to the stern and terminating at the stern at a point above and beyond the propeller, which chute has well 85 holes in the furnace room, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

MAX O. MILTZLAFF.

Witnesses:

A. HARRASSOWITZ, G. R. MEYER.