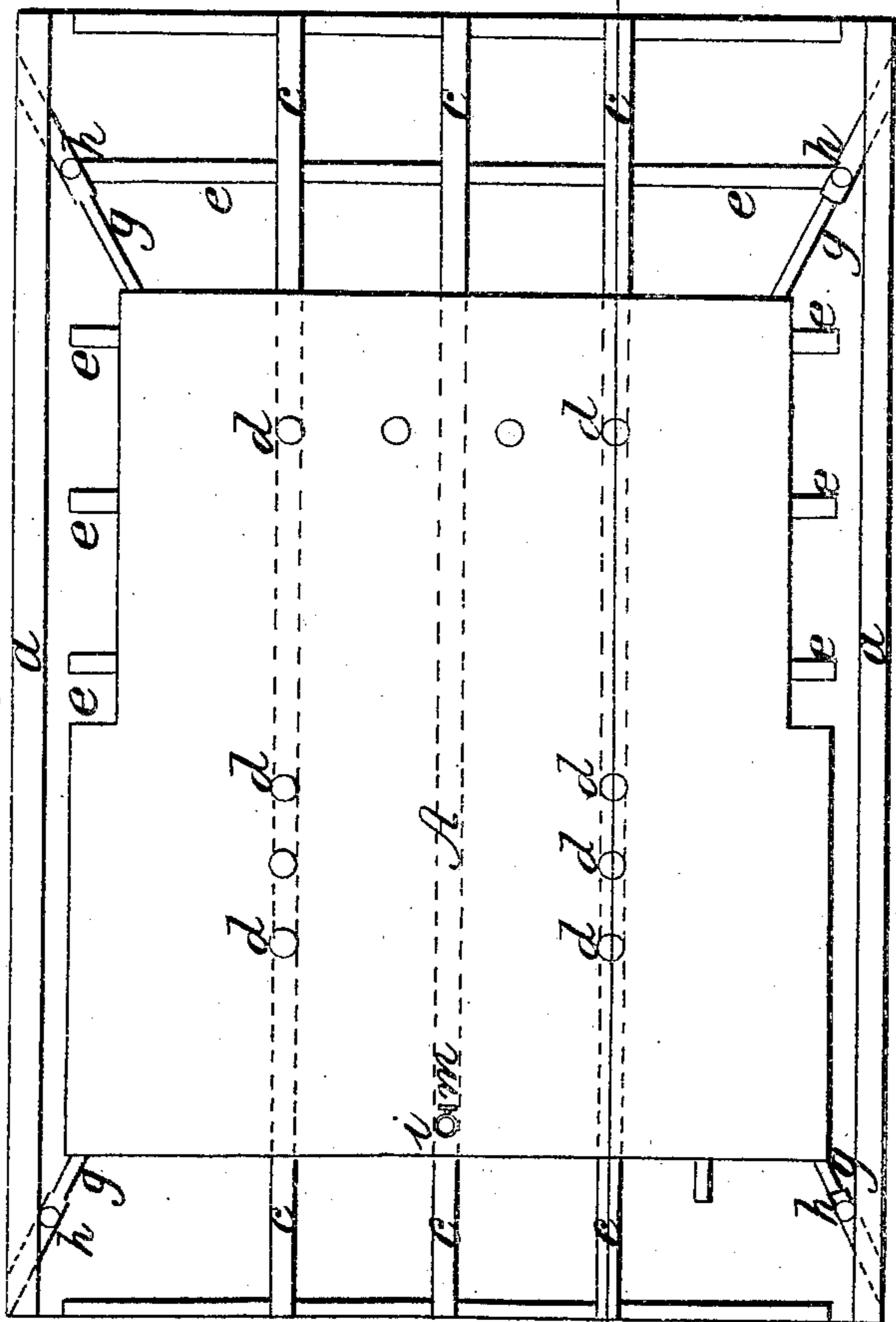
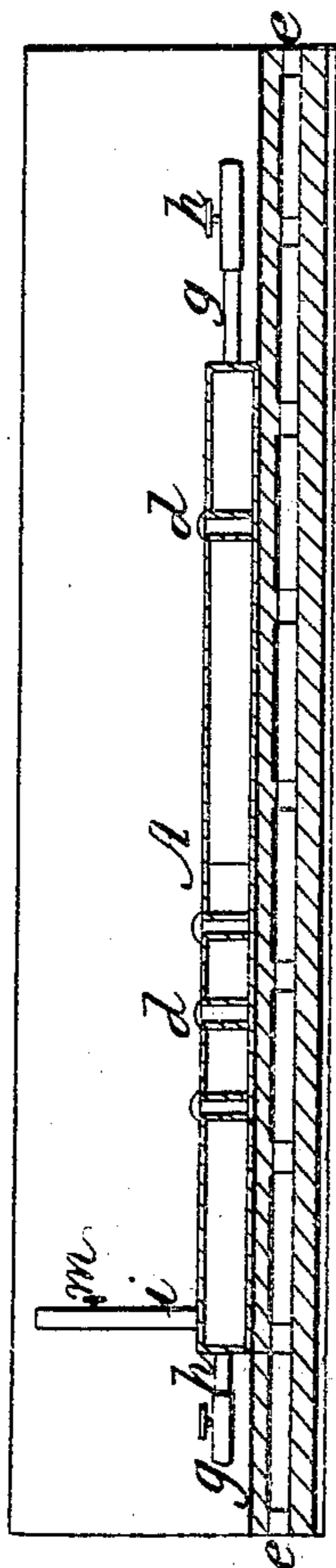


*A. G. Polhamms.*  
*Fire Extinguisher.*  
*N<sup>o</sup> 63,293. Patented Mar. 26, 1867*

*Fig. 1*



*Fig. 2*



*Witnesses;*  
*Theo Tusch*  
*J. A. Service*

*Inventor;*  
*A. G. Polhamms*  
*Per Munn & Co.*

# United States Patent Office.

ABRAHAM G. POLHAMEUS, OF NYACK, NEW YORK.

*Letters Patent No. 63,293, dated March 26, 1867.*

## IMPROVED WATER-TIGHT IRON TANK FOR THE PROTECTION OF THE TIMBERS OF STEAMBOATS.

The Schedule referred to in these Letters Patent and making part of the same.

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, ABRAHAM G. POLHAMEUS, of Nyack, in the county of Rockland, and State of New York, have invented a new and useful Improvement in Steamboats for Protection against Fire; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing, forming a part of this specification, in which—

Figure 1 is a plan of my invention.

Figure 2 is a vertical longitudinal section, taken in the plane of the line *x x*, fig. 1.

Similar letters of reference indicate like parts.

This invention relates to an improvement in the construction of steamboats, to protect them against the danger of fire, and consists in the construction of an iron tank or reservoir of water as a foundation for the boilers and furnaces. It is well known that fires frequently occur under the boilers and furnaces of steamboats, and they are generally involved in mystery and uncertainty as to their origin. But, in fact, by constant exposure to heat, wood gradually undergoes a change in its nature and condition which renders it highly inflammable, and at a certain stage of its conversion into a species of charcoal it readily ignites at a high temperature without the direct contact of fire. For this reason fires often occur beneath the boilers and furnaces of steamboats which are hidden and unknown, and, after smouldering for days, break out suddenly and mysteriously. In the course of six or seven years' service the keelsons and flooring under the boiler and furnaces of steamboats become so changed and liable to danger from this cause that it is a common practice to overhaul and renew the wood-work at great expense. To obviate the danger and the necessary expense of repairs arising from this source is the object of this invention.

*a a* represent the hull of a steamboat; *c c* keelsons on the flooring timbers *e e*. Resting on the keelsons is laid a flat tank, *A*, several inches thick, constructed of plate iron, and riveted together like a boiler to make it water-tight, which tank shall be coextensive with the boilers and furnaces and fire-room, and form their foundation. To support the weight of the furnaces and boilers, socket-screw bolts *d d*, encased in water-tight tubes, pass vertically through the tank, bearing on the keelsons and the flooring timbers; or iron blocks may be fitted on the inside of the tank between the upper and lower shells, to sustain the weight of the boilers and furnaces, and allow of a free circulation of water in the tank, with which it is to be filled, either by a system of pipes *g g*, leading from the tank and passing through the sides of the vessel to the water outside, or by means of pumps on the inside. The pipes *g g*, communicating with the water outside of the vessel to supply the tank and keep up constant circulation and renewal of cold water, will be provided with stop-cocks *h h* to regulate the supply of water, and cut it off when necessary for cleaning the tank out. An air pipe, *i*, provided with a stop-cock or vent, *m*, is connected with the tank for the purpose of carrying off the air when it is filled with water; *n* is an exit pipe.

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

The construction of water-tight iron tanks, in which are maintained a constant change and circulation of water, as the foundation of boilers and furnaces on steamboats, to protect them against fire, substantially as herein described.

The above specification of my invention signed by me this 29th day of September, 1866.

ABRAHAM G. POLHAMEUS.

Witnesses:

WM. F. McNAMARA,  
ALEX. F. ROBERTS.