

N^o 20,081



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PROVISIONAL SPECIFICATION.

Improvements in Steam Generators.

I, DESIRE THOMAS PIOT, of No. 71, Bolsover Street, Euston Road, in the County of Middlesex Electrician do hereby declare the nature of this invention to be as follows :—

The object of my invention is to produce a steam generator in which the operation of feeding with water is continuous and depends upon the vaporization of the water in the heating chamber.

In carrying my invention into effect I use two or more tubes, opening into a common chamber so that the orifices thereof, and the ports or slots formed in the sides or circumference may be close to the sides of said chamber. I prefer to charge the tubes and chamber with water, and to generate steam by heating said chamber. The exit of the steam under pressure and consequent condensation by contact with the atmosphere or other surrounding medium causes a reverse current by which the water of condensation or other water may be drawn into the generator.

The chief feature of my said invention is to place a small volume of fluid in direct contact with a source of heat, and to utilise the pressure for producing mechanical work, the volume of liquid under action being always supplied by its own condensation either by using the water thereof or utilising the attenuated pressure to draw in water from other sources and produce a continuous action.

My said invention is especially useful in the case of toy boats, where the propulsion depends upon the pressure of steam acting directly upon the water, and the consequent condensation serves to supply the feed by convection.

Dated this 18th day of November 1891.

FREDK. WALKER,

11, Furnival Street, Holborn, London, E.C., Agent for the Applicant.

COMPLETE SPECIFICATION.

Improvements in Steam Generators.

I DESIRE THOMAS PIOT of No 71 Bolsover Street Euston Road in the County of Middlesex, Electrician do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement :—

The object of my invention is to produce a steam generator in which the operation of feeding with water is continuous and depends upon the vaporization of the water in the heating chamber.

In order that my invention may be the better understood I have appended the accompanying sheet of drawings in which

Figure 1 is a side elevational view of a model boat having my improved steam generator adapted thereto.

Figure 2 is a plan of the same and

Figure 3 is a transverse section of my improved generator.

In carrying my invention into effect I employ two or more tubes A A¹ one of said tubes A¹ may be slightly longer than the other, one end of the tubes opening into a chamber B common to the two so that the orifices, ports or slots which may be formed in the sides or circumference may be close to the sides of the above mentioned chamber B, I prefer to charge the tubes and chamber with water and to generate steam by heating said chamber in any suitable manner.

The exit of steam under pressure and consequent condensation by contact with

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P'iot's Improvements in Steam Generators.

the atmosphere or other surrounding medium causes a reverse current by which the water of condensation or other water may be drawn into the generator.

The chief feature of my invention is to place a small quantity or volume of fluid in direct contact with a source of heat and to utilise the pressure for producing mechanical work, the volume of liquid under action being always supplied by its own condensation either by using the water thereof or utilising attenuated pressure to draw in water from other sources and produce a continuous action. 5

Figures 1 and 2, in which the body or hull C of the vessel is utilised as a reservoir for liquid fuel, and has adapted to the deck thereof a suitable burner *b* and wick *c* both wick and burner being shielded from the influences of the external atmosphere by means of a funnel *d*. 10

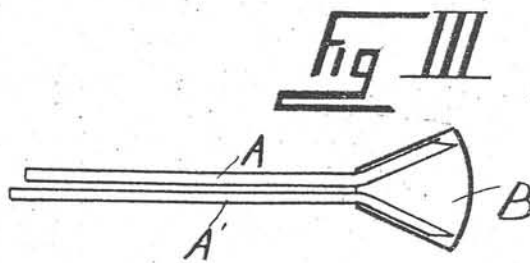
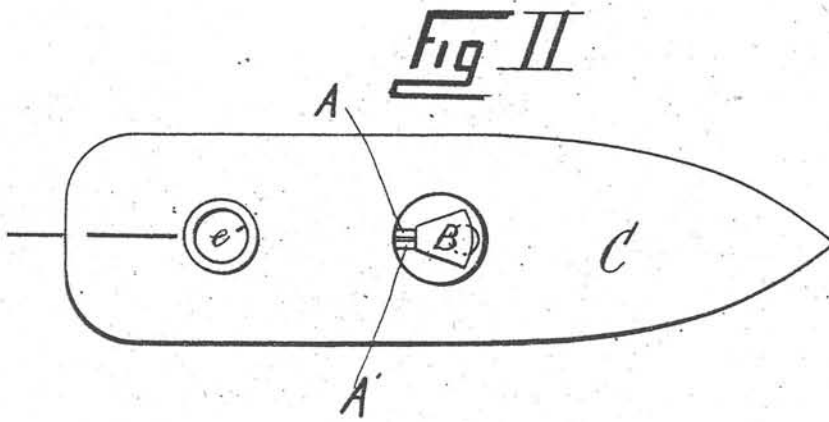
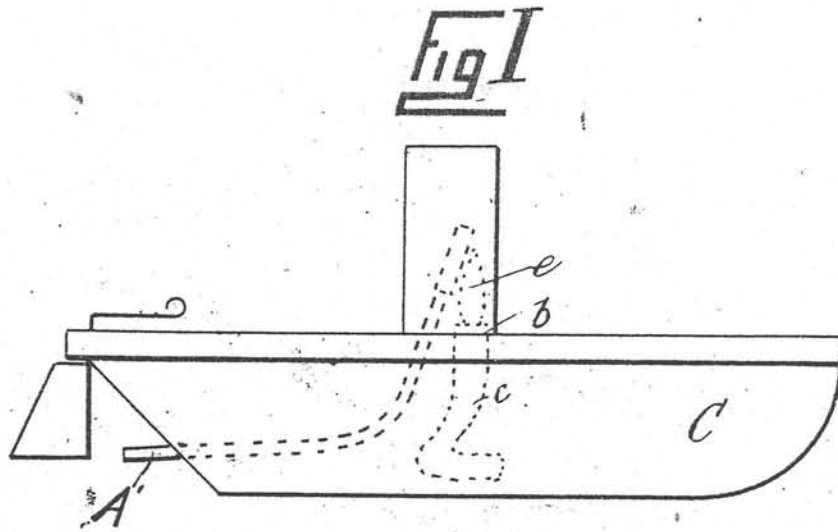
The chamber B is supported in any suitable manner inside the aforementioned funnel immediately over the flame *e* and the tubes A A¹ are led therefrom to the stern of the boat as shewn by the dotted lines in Figure 1. Water having been injected by any suitable manner into the chamber B, on lighting the lamp steam is generated, and issuing through the tube A¹ causes a partial vacuum in the said chamber and water is drawn up the tube A when again coming into contact with the heated surface of the chamber is converted into steam thus keeping up a constant flow of water to the chamber B and at the same time propelling the vessel C by the pressure of steam acting upon the water in which the vessel floats. 15
A screwed tap *e*¹ or other suitable device is provided for the purpose of supplying the oil to the body of the boat. 20

Having now particularly described and ascertained the nature of my said invention, and in what manner the same is to be performed, I declare that what I claim is :— 25

In a steam generator the combination of two pipes or tubes terminating in a chamber heated by a lamp or other source of heat in which steam is generated and a constant supply of water created by convection substantially as herein described with reference to the accompanying drawings. 30

Dated this 18th day of August 1892.

FREDK. WALKER,
11, Furnival Street, London, E.C., Agent for the Applicant.



[This Drawing is a reproduction of the Original on a reduced scale]