

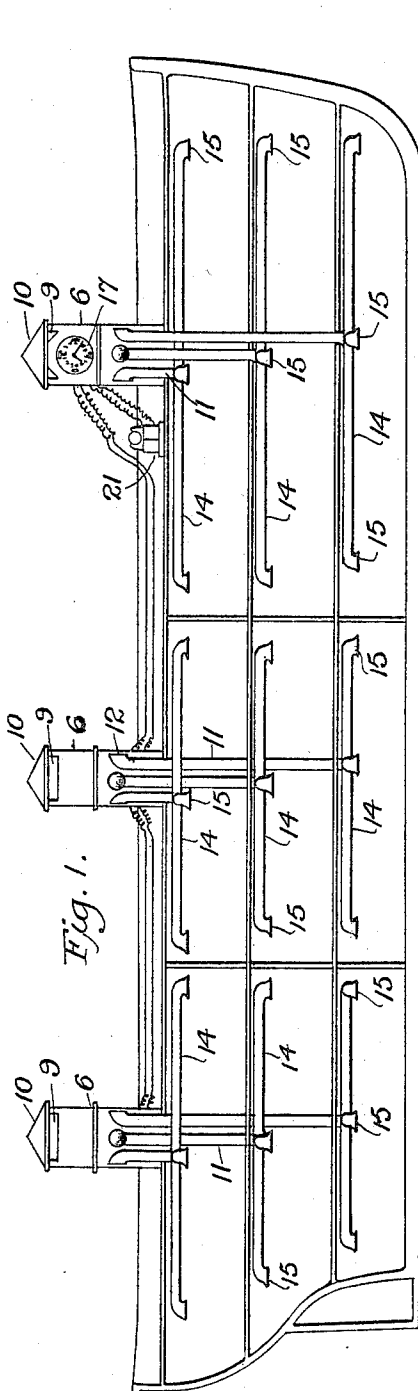
No. 678,787.

Patented July 16, 1901.

F. W. MEYER.
MARINE FIRE INDICATING SYSTEM.

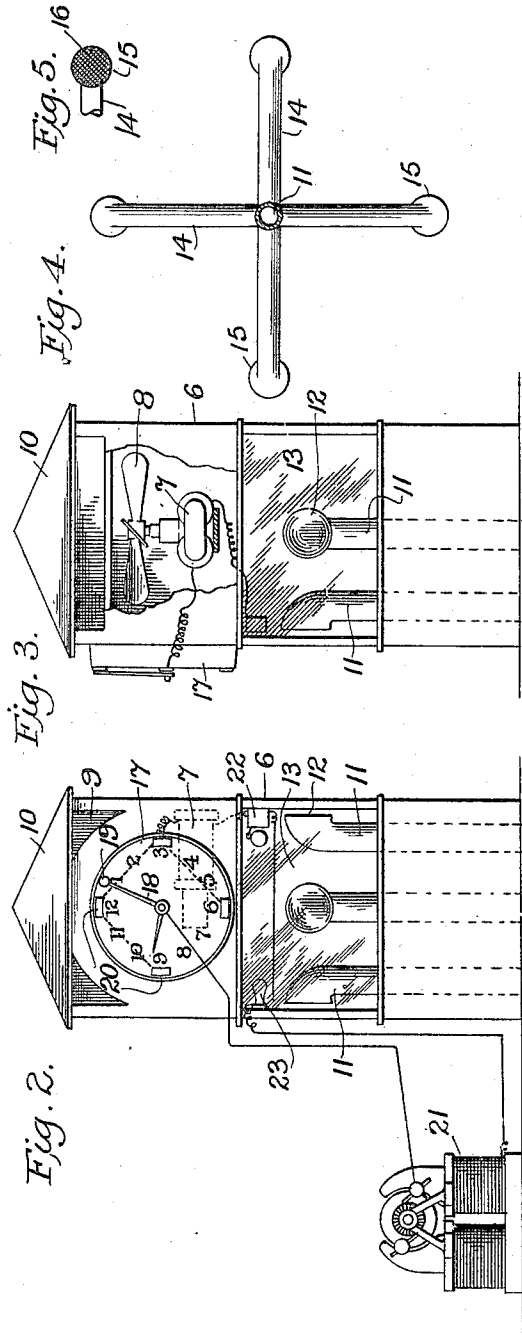
(Application filed Sept. 28, 1900.)

(No Model.)



WITNESSES

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FREDERICK W. MEYER, OF JERSEY CITY, NEW JERSEY.

MARINE FIRE-INDICATING SYSTEM.

SPECIFICATION forming part of Letters Patent No. 678,787, dated July 16, 1901.

Application filed September 23, 1900. Serial No. 31,413. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK W. MEYER, a citizen of the United States, residing at Jersey City, in the county of Hudson and State of New Jersey, have invented a new and useful Marine Fire-Indicating System, of which the following is a specification.

My invention relates to fire-alarms, and has for its object to provide a fire alarm or indicator for the purpose of locating a fire in the several holds or bunkers of a ship.

I attain the object of my invention by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a diagrammatic view of the interior of a ship and of my apparatus connected therewith. Fig. 2 is an enlarged view of one of the indicator-stations. Fig. 3 is a view at right angles to Fig. 2. Fig. 4 is a top plan view of the tubes in one of the bunkers or holds, and Fig. 5 is a bottom view of one of the open ends of the tubes shown in Fig. 4.

In the accompanying drawings like numerals of reference refer to the same parts in each of the views, and in the practice of my invention I provide an indicator-station, any number of which may be employed and which may be located at the forward watch on the bridge and on the aft part of the ship or may have any other convenient location, and in each station I mount an electric or other motor 7, adapted to operate a fan 8 in such a way that air will be drawn upward and forced out through openings 9 beneath the hoods 10 at the top of each station.

Each station 6 is made substantially airtight, except for the openings 9 at the top and one or more pipes 11, which pass into the stations at the bottom and end in flaring openings 12 behind glass panels 13 in the sides of the stations 6, so that the said flaring ends are exposed to view. The pipes 11 extend in the opposite direction down to the several holds or bunkers of the ship, as clearly indicated in Fig. 1, and preferably end within the hold or bunker in a plurality of radial tubes 14, having flaring open ends 15, which are preferably covered with netting 16, as shown in Fig. 5.

Mounted in any convenient place, but as shown in the drawings on the forward station, is a clock 17, the large hand 18 of which is

provided with a contact-disk 19, and the clock is provided with a plurality of contact-plates 20, which are shown here as four in number and so located that contact will be made every fifteen minutes, and the hand and plates are electrically connected with a dynamo 21 and with the motor 7 in each station, and they are also preferably connected with an electrical bell 22 and with an incandescent lamp 23 in each station.

The operation is as follows: The clock 17 is set to keep regular time, so that every fifteen minutes, as here shown, the large hand will contact with one of the plates 20, and the current will pass to the motor 7, which will set the fan 8 in motion, and as the fan operates to force the air out at the top of the station-box air will be drawn through the tubes 11 from the several bunkers, and if there should happen to be a fire in any one of the holds smoke will come from that tube and can be seen by the watchman through the glass panels 13. It will be observed that the plates 20 are of considerable length, so that the current will pass for a sufficient length of time to insure air being drawn from the most distant bunker or hold. In order to call the attention of the proper watchman or officer to the station when the fan is in operation, I have provided the bell 22, which will ring while the current is passing, and I have also provided the light 23, which will be of double value at night, as it will call the attention of the officer and will also enable him to see if smoke comes from any of the tubes 11, and as it will be indicated on the tubes from which hold they lead a fire can be located instantly and an alarm can be given by the officer in any suitable manner, and it is also evident that the watchman in charge of each station or whose duty it is to observe the same may be required to report to the proper officer each time the fan operates that all is well or otherwise, as the case may be, so the officer will know the watchman is doing his duty.

It is evident that many changes may be made without departing from the spirit of my invention, such as mounting a wheel on the large hand instead of the disk and in mounting a larger number of contact-plates 20, or even limiting the number to one, or

even in providing that the fan shall rotate continuously, in which case the clock would not be necessary, or in providing other means to turn on the current at stated intervals, also that the radial tubes 14 may be dispensed with and that the netting 16 may be dispensed with and other means may be provided besides the netting to prevent rats entering the tubes 11. It is also evident that all the tubes may be led into a single station and that a clock might be used in connection with each station, if so desired, and I reserve the right to make all changes which fairly come within the scope of my invention.

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

1. In a marine fire-indicating system, a station, a tube leading from said station to the hold or bunker of the ship, and means to draw air through said tube from the said hold or bunker into the station, for the purpose set forth.

2. In a marine fire-indicating system, a station, tubes leading from said station to several holds or bunkers, and means to periodically draw air through said tubes from the several holds or bunkers, as and for the purpose set forth.

3. A marine fire-indicating system, comprising a station, a fan mounted in said station, and adapted to drive the air out of one end thereof, tubes entering the opposite end and terminating beneath said fan, said tubes extending oppositely to the several holds, or bunkers of the ship, transparent panels in the sides of said station, and means to operate said fan periodically, as and for the purpose set forth.

4. A marine fire-indicating system, comprising a station, a fan mounted in said station and adapted to drive the air out of one end thereof, tubes entering the opposite end and terminating beneath said fan, said tubes extending oppositely to the several holds, or bunkers of the ship and terminating in radial tubes, transparent panels in the sides of said station, and means to operate said fan periodically, as and for the purpose set forth.

5. A marine fire-indicating system, comprising a station, a fan mounted in said station and adapted to drive the air out at the top thereof, a motor adapted to operate said fan, means to periodically pass a current through said motor, tubes entering said station beneath said fan, transparent panels in said station whereby the ends of said tubes are exposed to view, said tubes extending from said station to the several holds or bunkers of the ship and terminating in radial tubes, as and for the purpose set forth.

6. In a marine fire-indicating system, a plurality of tubes leading to the several holds or bunkers, a fan adapted to draw air from said holds or bunkers through said tubes, a motor adapted to operate said fan, means to periodically pass a current of electricity through said motor, and means to call attention to said tubes when said fan is in operation, as and for the purpose set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FREDERICK W. MEYER.

Witnesses:

EDWARD MURPHY,
G. P. VAN WYE.