

No. 892,572.

PATENTED JULY 7, 1908.

J. W. ATLEE.  
SIGNAL DEVICE.

APPLICATION FILED JAN. 11, 1906.

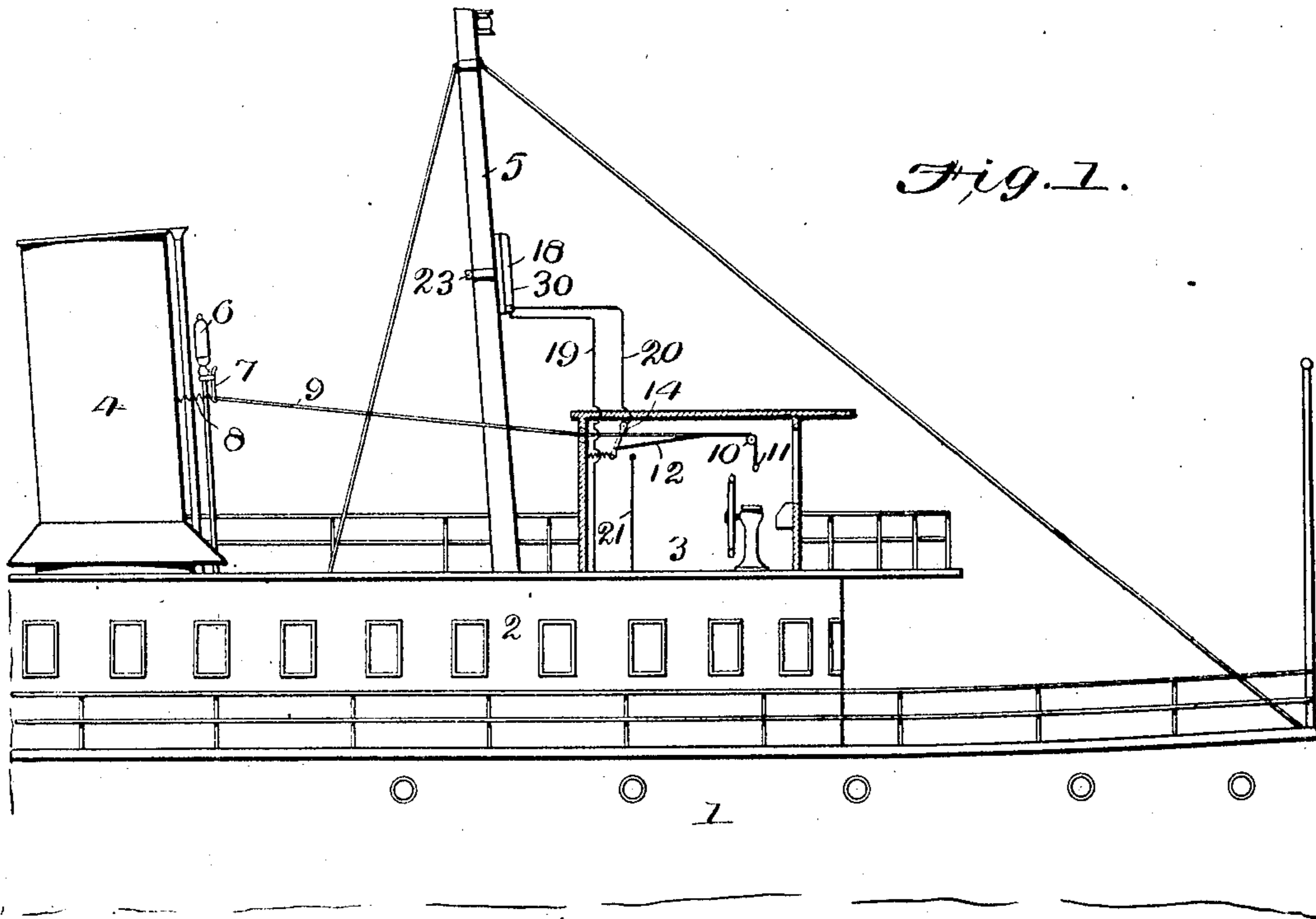


Fig. 1.

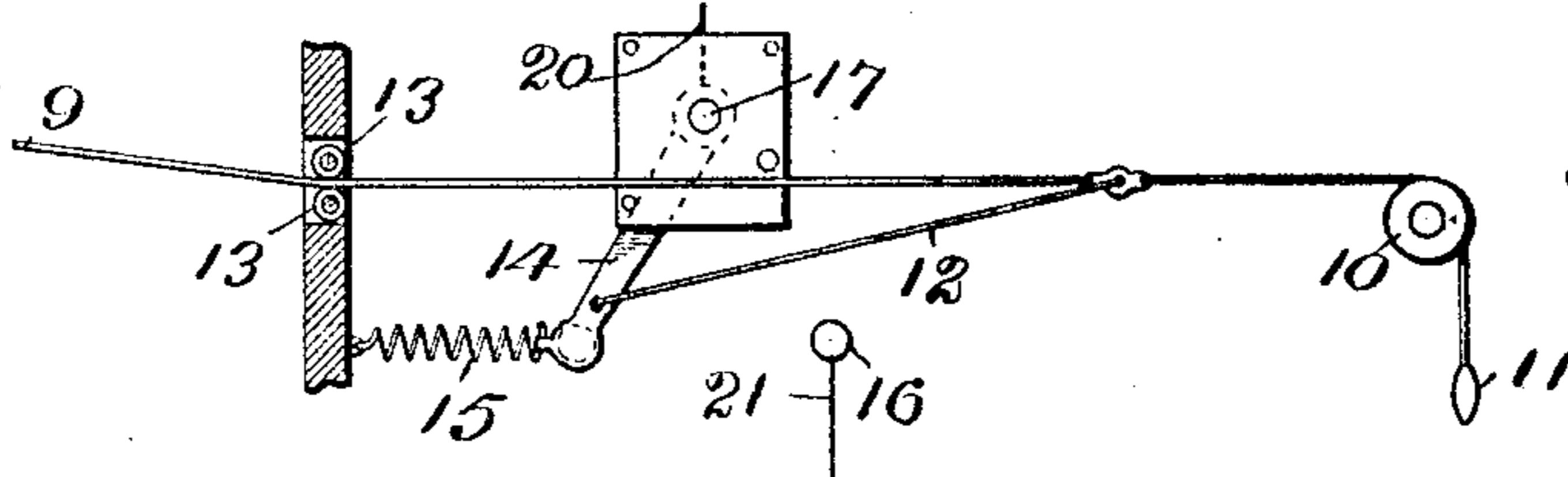


Fig. 2.

Fig. 3.

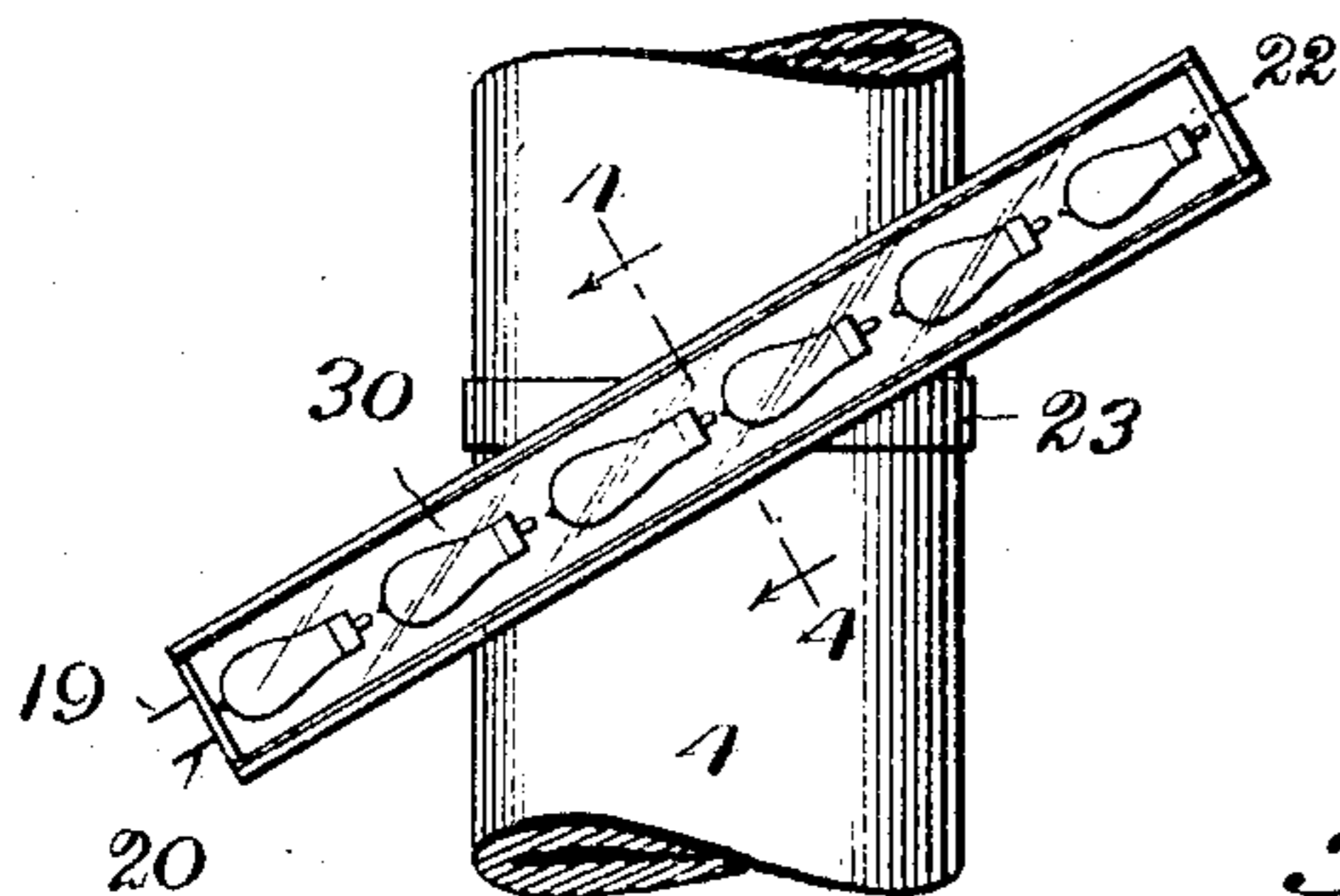


Fig. 4.

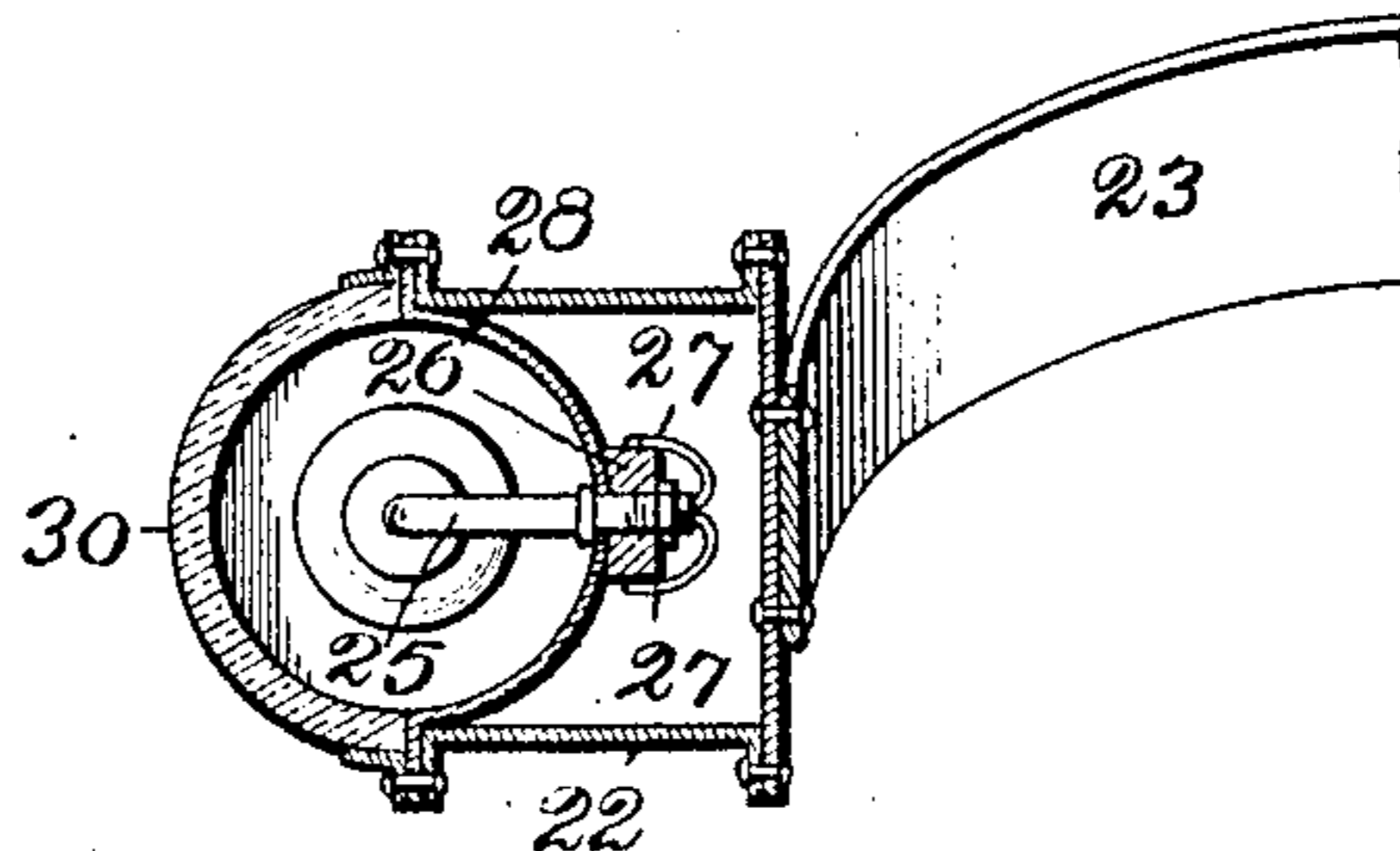
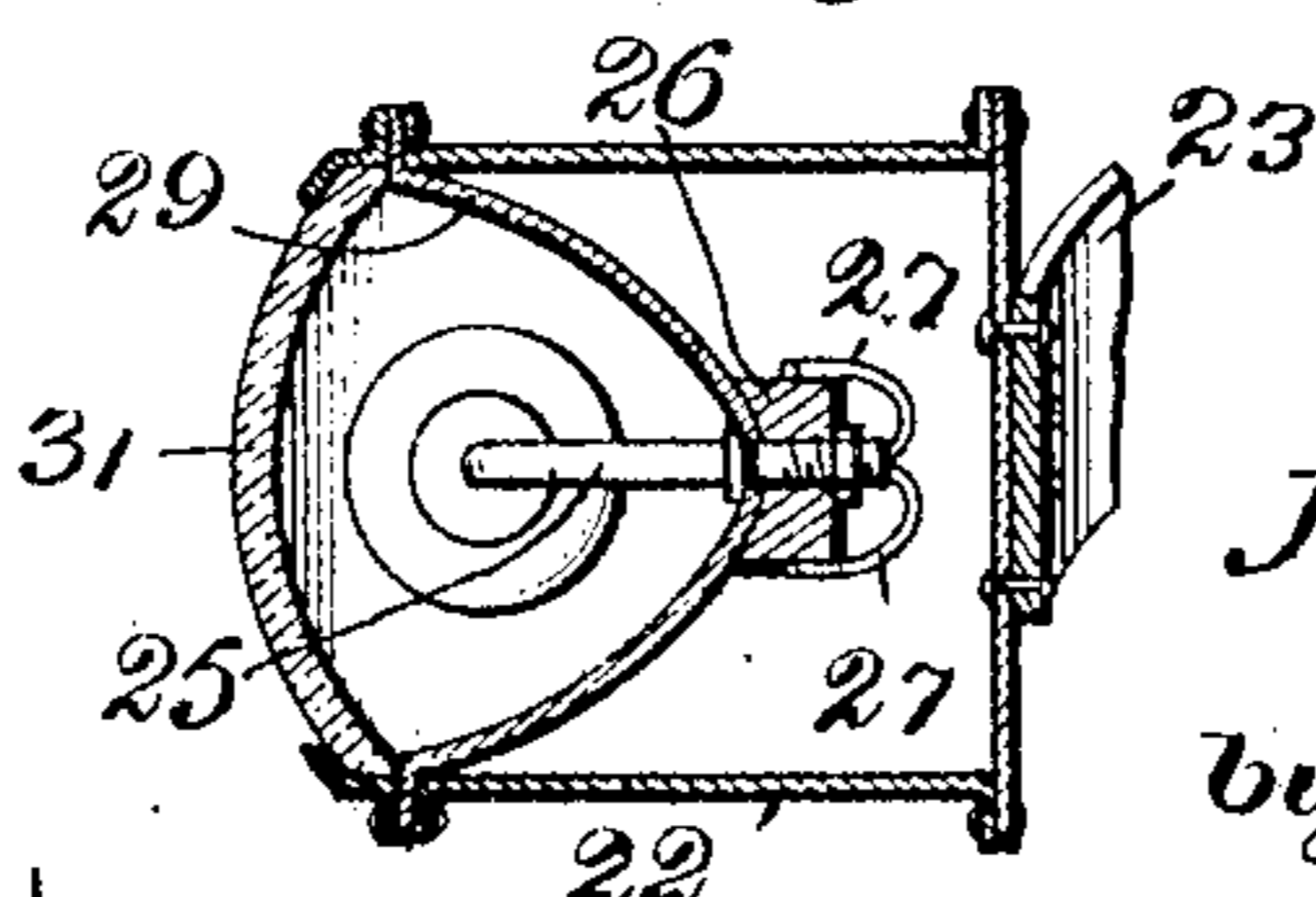


Fig. 5.



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# UNITED STATES PATENT OFFICE.

JOSHUA W. ATLEE, OF RIVERTON, NEW JERSEY.

## SIGNAL DEVICE.

No. 892,572.

Specification of Letters Patent.

Patented July 7, 1908.

Application filed January 11, 1906. Serial No. 295,525.

*To all whom it may concern:*

Be it known that I, JOSHUA W. ATLEE, a citizen of the United States, and residing at Riverton, State of New Jersey, have invented certain new and useful Improvements in Signal Devices, of which the following is a full, clear, and complete disclosure.

My invention relates to nautical signal devices, and particularly to that class of the same which are used upon passing vessels.

It is well known that passing vessels are accustomed, on approaching each other, to blow one or two blasts of their respective whistles, to indicate whether they will pass on the port or starboard side. These blasts are supposedly detected by their sound, but as a matter of fact they are more often detected especially in stormy weather by a jet of steam which escapes from the whistle during the period of the blast. Thus the pilot or other person in the pilot house may utilize his sense of vision alone or together with his sense of hearing to comprehend whether there are one or more blasts blown by the approaching vessel. On some occasions, however, it is impossible to see a jet of steam at such a distance, especially in a fog or in darkness; consequently, during these occasions, the sound alone is the only evidence of the signal, thus rendering the surrounding conditions dangerous, and necessitating an alert watch to be kept.

The object of my invention is to remedy this situation by providing a signal which can be rendered visible at any time, and I accomplish this object by displaying or flashing an elongated bar of light simultaneously with the period of or during the blast of the whistle.

My invention consists of further details of construction and manner of operation, all of which will be pointed out in the following specification and the accompanying drawing in which like reference characters refer to corresponding parts.

In the drawing, Figure 1 is a general outline of my invention, located on a fragmentary portion of a steamboat; Fig. 2 is a detail view of the circuit closer and operating mechanism; Fig. 3 is a front view of the lamp casing, attached to a fragmentary portion of the mast; Fig. 4 is a transverse section taken on lines 4—4 of Fig. 3; Fig. 5 is a transverse section of a modification of my lamp casing, showing the reflector parabolic in cross section.

In the drawings, 1 represents the hull of an ordinary steamboat, having a deck cabin 2 and a pilot house 3, the latter being shown in cross section. A smoke stack 4 is shown projecting above the cabin and a mast 5 in the rear of the pilot house. Adjacent to the front of the smoke stack 4 is located the whistle 6, having a valve 7, which, when open to admit steam to the whistle, is resisted by the spring 8. Connected to the lower end of the valve 7 for the purpose of opening the same is a cord 9, which passes forwardly through the rear wall of the pilot house between the anti-friction or guide rollers 13—13, and passing still further forwardly runs over the pulley 10, and terminates in the handle 11, which is readily accessible or within easy reach of the person at the wheel.

Fastened to the mast 5 at an elevation above the top of the pilot house is the lamp casing 18, the interior mechanism of said casing being the same as that disclosed in the modification shown in Fig. 3. This casing contains a row of incandescent bulbs, each of which is arranged longitudinally of the casing, and is wired up independently through the rear of the reflector 28 disclosed in Fig. 4, in which the two wires 27—27 are connected up with the two wires 19 and 20 shown in Fig. 1, the said wires being part of a circuit, as will hereinafter be described. The wires 27—27 pass through the tube 25 into the bulb, and this tube is held in position by being screwed into the block 26 and bolted thereto, as shown in Fig. 4.

Attached to the rear of the casing is a strap or band 23, for fastening the same around the mast, smoke stack or any other suitable support. The front of the casing is inclosed by the usual lens 30. Should it be desired to throw the rays of light parallel and in a wide flat beam, similar to that of the shaft of a search light, a reflector, parabolic in cross section, may be used, such as shown in Fig. 5, in which 29 is the reflector and 31 the lens, the other parts corresponding to those in Fig. 4.

I have illustrated my device upon a steamboat, but it is obvious that the same may be used upon any type of vessel, the arrangement of the different parts being a matter of convenience. The light, however, should be placed in an elevated position in the middle of the vessel, and although it is not necessary to have a series of lamps or an elon-

gated casing, yet an arrangement should be provided so that the peculiar character or angle of the light is sufficient to identify it. Further means of identification, however, may be utilized, such as colored lights, various arrangements of which readily suggest themselves, as for instance having every lamp of a color according to its position in the row.

Having now described my invention, I will proceed to explain the operation thereof.

When it is desired to signal an approaching vessel, the person in the pilot house pulls down on the whistle cord by grasping the handle 11. This pulls the cords 9 and 12 forwardly, thus opening the whistle valve 7, causing the same to operate or blow. At the same time, the arm 14 of the switch-board is swung forwardly on its pivot 17, until it comes in contact with the button 16. This closes the circuit, which runs as follows: From the ship's generator (not shown) in the hull of the vessel, up through the pilot house by means of the wire 19 into the lamps in the casing 22, and out of the latter by means of the wire 20, switch-arm 14 and wire 21, back into the ship's generator. Normally, the switch-arm 14 is in the position shown in the drawings, being held against any tendency to a forward swing by the spring 15. It is obvious that when the arm is in this position the circuit is open and no light is produced, thus when the bell cord handle 11 is pulled down the whistle commences to blow and an elongated bar of light is produced simultaneously, and this condition remains the same until the bell cord is released and the cord 9 pulled rearwardly by the springs 8 and 15, thus shutting off the whistle and opening a circuit which cuts off the light. The same period of illumination can be produced in the lamp as those ordinarily produced by a whistle, as for instance one long and two short, and so on, according to any established code of signals, and a quick jerk of the bell cord may cause the lamp to flash, that is, to cause a sudden appearance followed by an immediate disappearance of light. Should there be any slack, back lash or stretch in the loose connection 9 between the handle 11 and the whistle, this would not interfere at all with the substantially simultaneous flashing of the light and sounding of the whistle, since the handle 11 is always pulled or released with a quick motion the switch will be thrown from one position to the other very rapidly, and any differences between the beginnings and the ends of the signals given by the whistle and light respectively, would be inappreciable. It will thus be seen that the flashes of light interpret or make definite just what sound was produced by the whistle, when for this or that reason (e.

g. the distance or the direction of the wind or the simultaneous blowing of another signal by another vessel) the sound of the whistle cannot be understood by an observer, the light supplements the sound by conveying the same to the eye of the observer. The duration of the flashes of light is simultaneous with the duration of the sound of the whistle and when the duration of the blast of whistle varies, the duration of the flashes of light also varies.

I have illustrated and described a lamp containing incandescent bulbs, but it is obvious that any other character of light can be utilized, such as an arc light, mercury vapor light wick lamps, etc. so long as the light produced consists of an elongated bar of light, by which I mean a straight or curved streak or stripe or bar of light, which presents to the eye of the observer a different and distinctive appearance from the well-known "unit-running lights" used in navigation.

I have shown the lights adapted to be displayed upon the forward mast of a steamboat, but they may be located in any other location on any vessel, provided the same are in a position visible to approaching vessels.

Throughout this specification I have used a particular nomenclature for the various parts for the purpose of illustration, but I reserve the right to utilize any of the equivalents thereof as long as the same are within the scope of my invention, as set forth in the accompanying claims.

What I claim and desire to secure by Letters Patent is:

1. In a signaling apparatus, the combination with means for producing an elongated bar of light, of sound producing means, and means for displaying said light and operating said sound producing means substantially simultaneously.

2. In a nautical signal device, an apparatus comprising means for displaying an inclined bar of light, a sound producing apparatus and means for displaying said light and operating said sound producing apparatus substantially simultaneously.

3. In a nautical signal device, the combination with a sound producing apparatus, of a plurality of electric lamps arranged to present an elongated bar of light and means for illuminating said lamps and for operating said sound producing apparatus substantially simultaneously.

In witness whereof I have hereunto set my hand this ninth day of January, A. D. 1906.

JOSHUA W. ATLEE.

Witnesses:

ALSTON B. MOULTON,  
ALEXANDER PARK.