

(No Model.)

2 Sheets—Sheet 1.

G. T. PARRY.
MARINE SIGNAL LIGHT.

No. 290,918.

Patented Dec. 25, 1883.

Fig. 1.

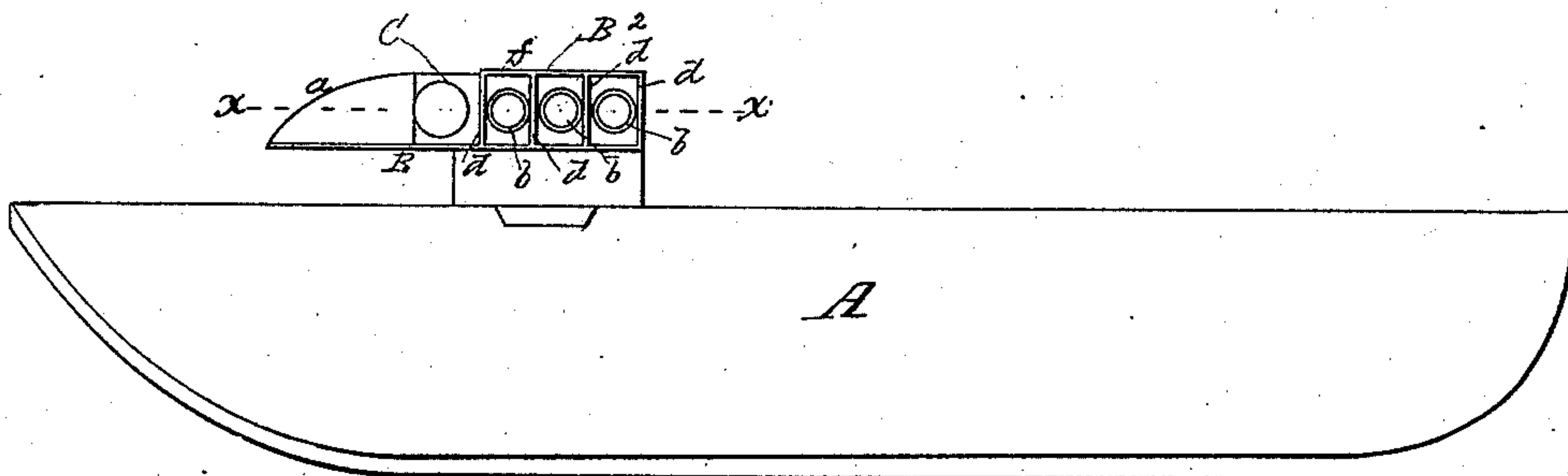


Fig. 2.

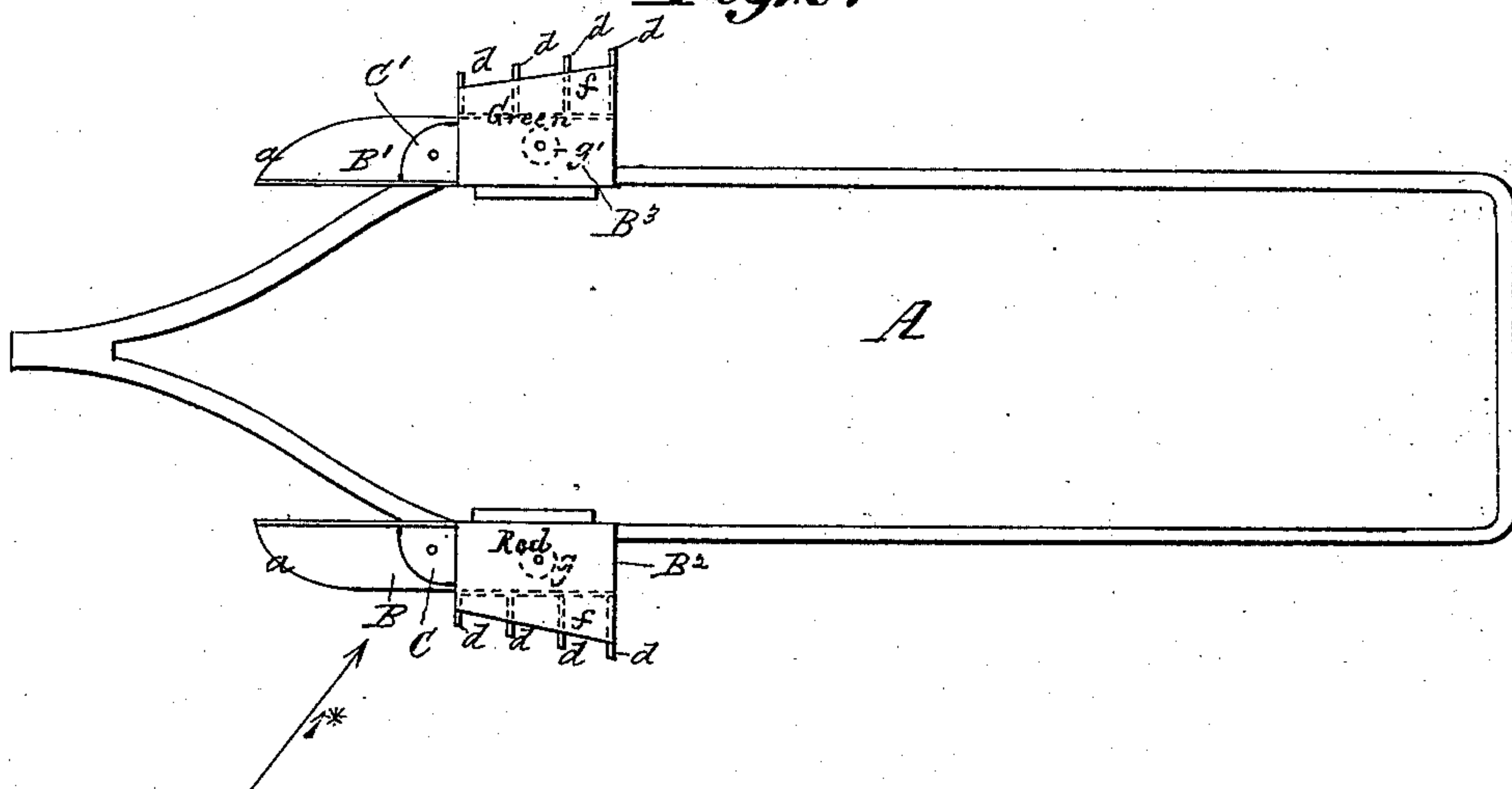


Fig. 3.



Fig. 4.



Fig. 5.

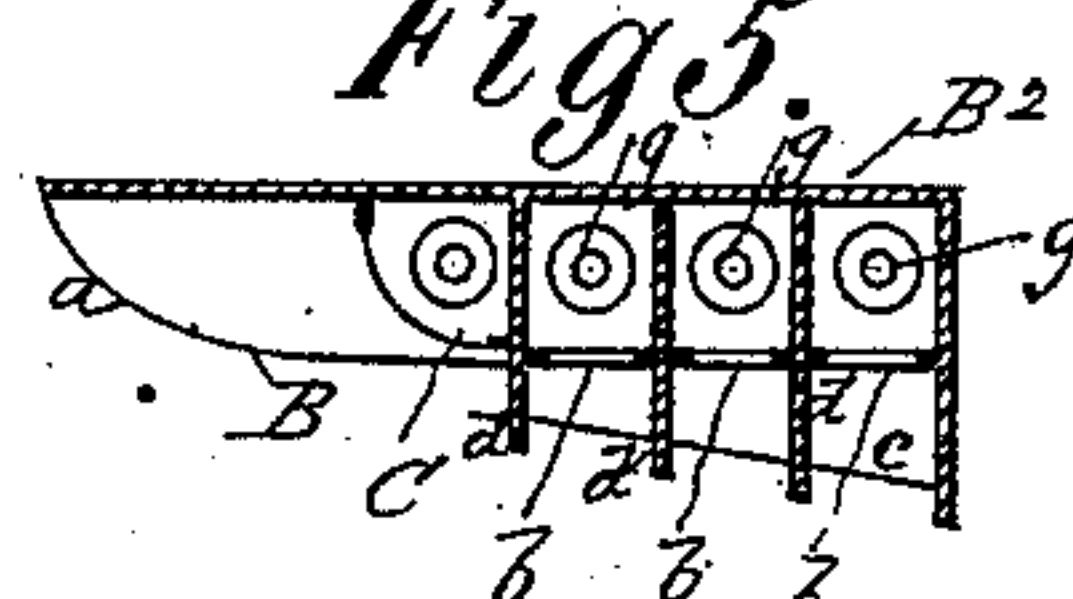


Fig. 6.

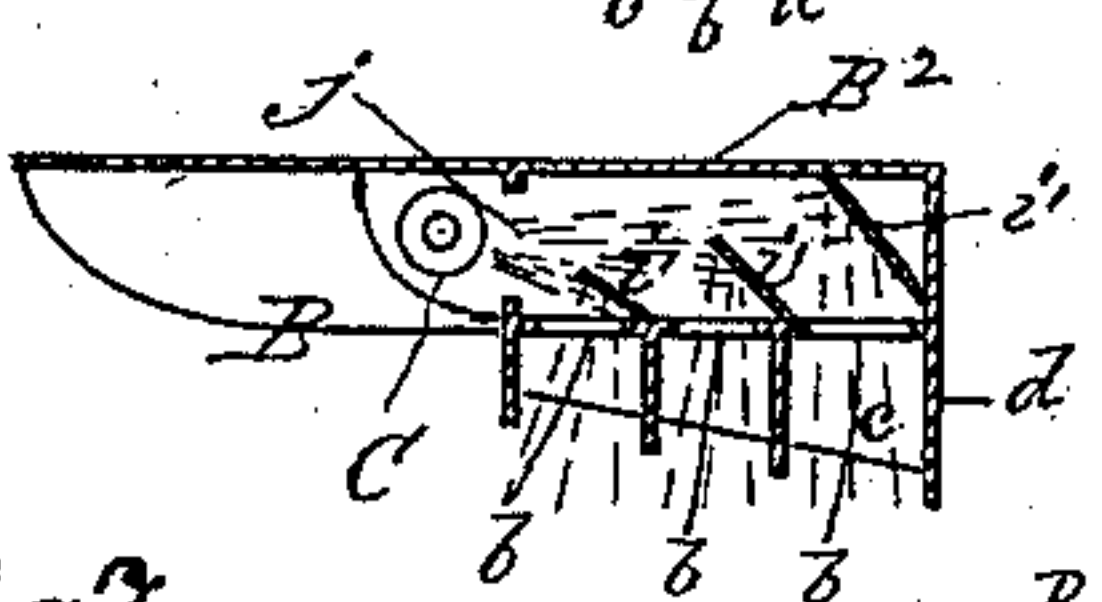
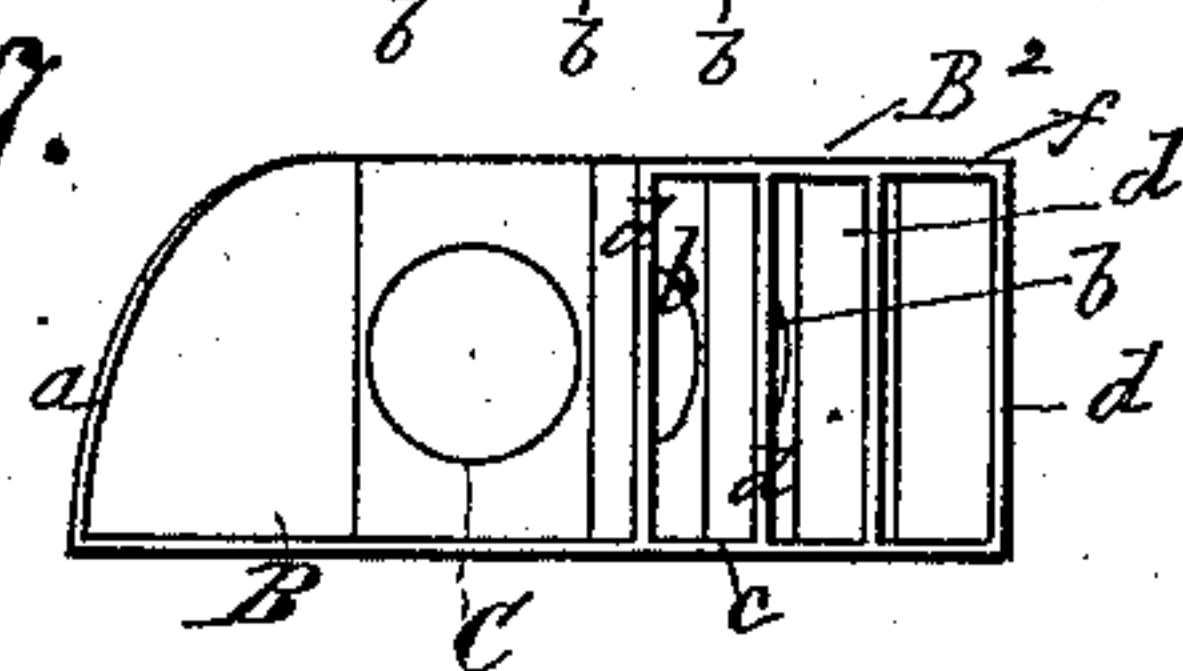


Fig. 7.



Witnesses

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Robt & Fenwick

Inventor:

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(No Model.)

2 Sheets—Sheet 2.

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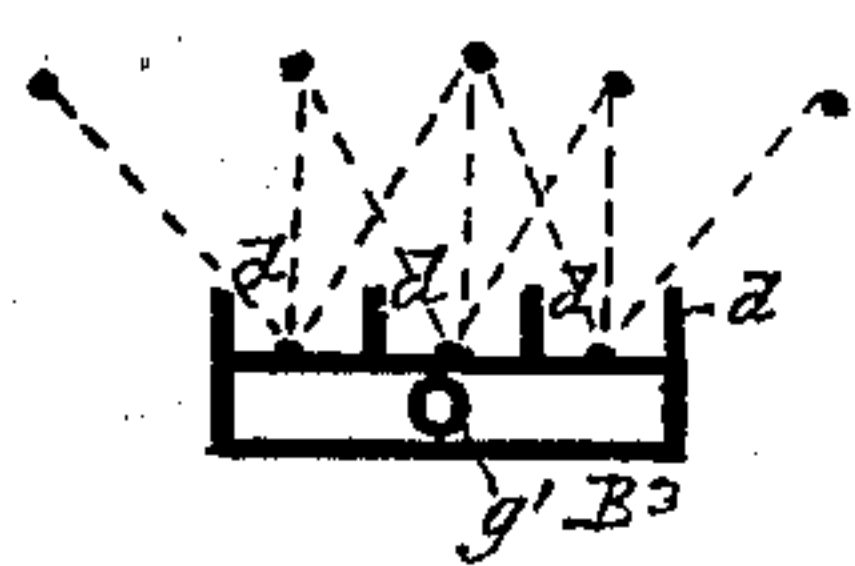


Fig. 8.

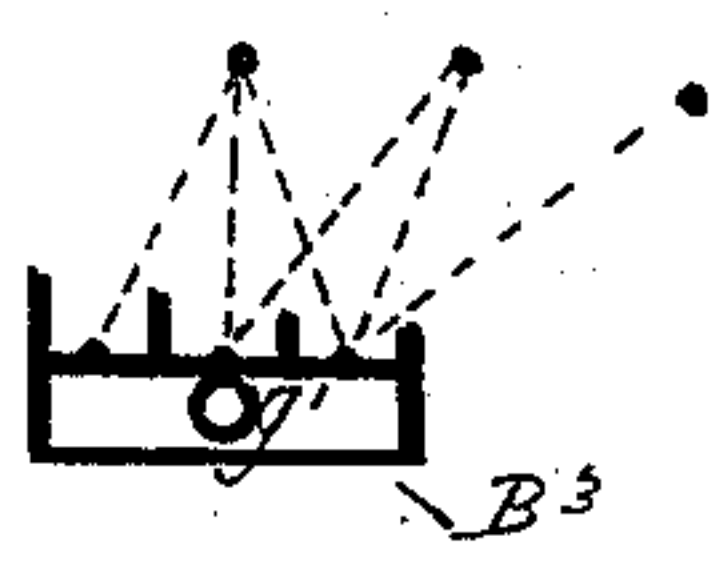


Fig. 9.

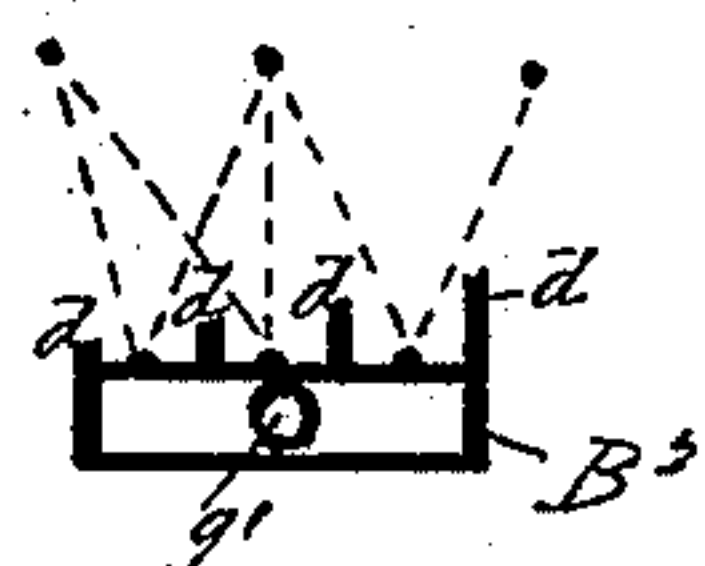


Fig. 10.

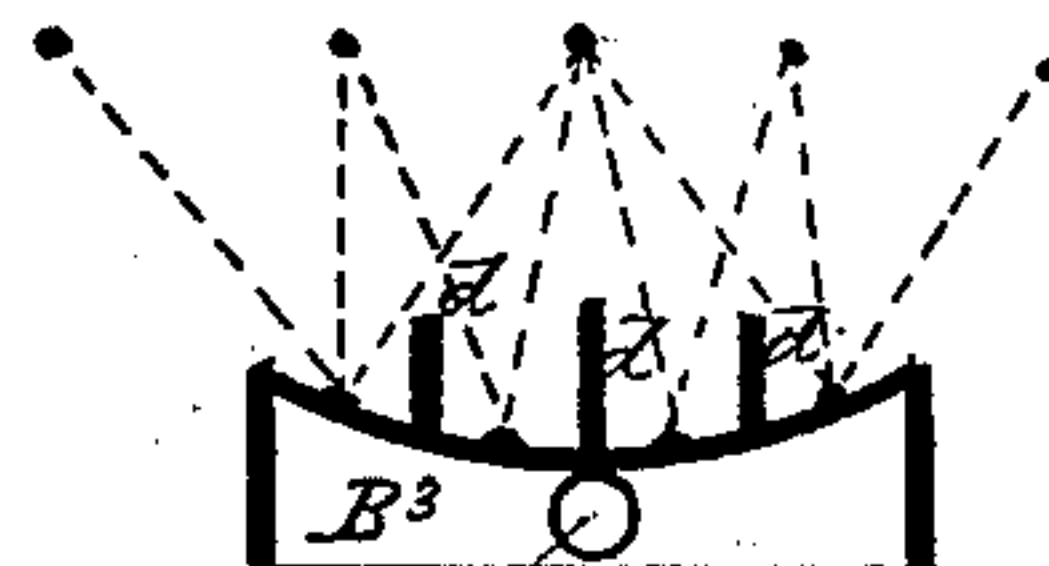


Fig. 11.

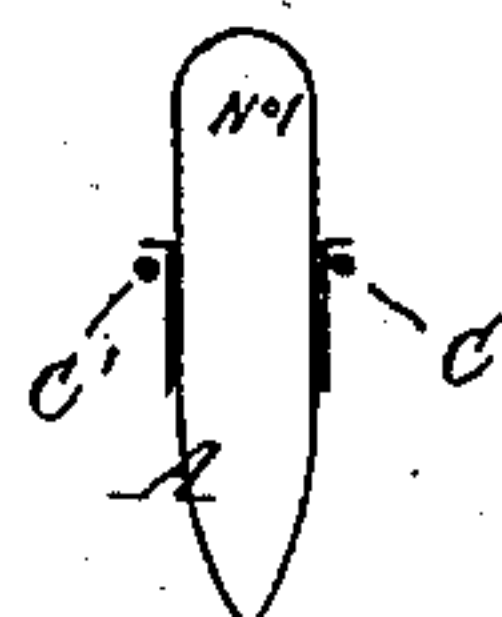


Fig. 12.

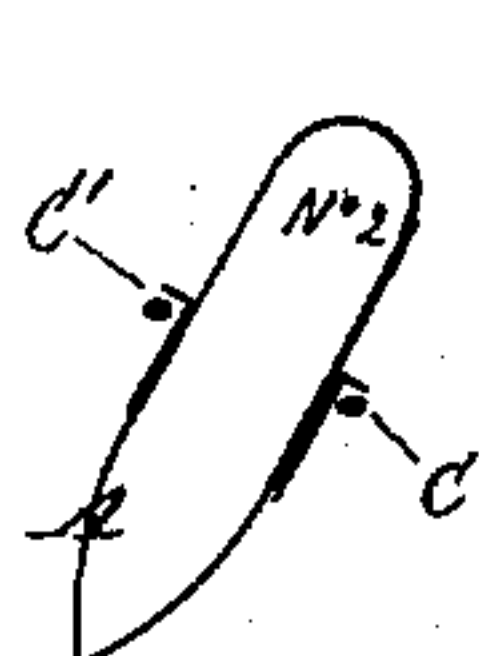


Fig. 13.

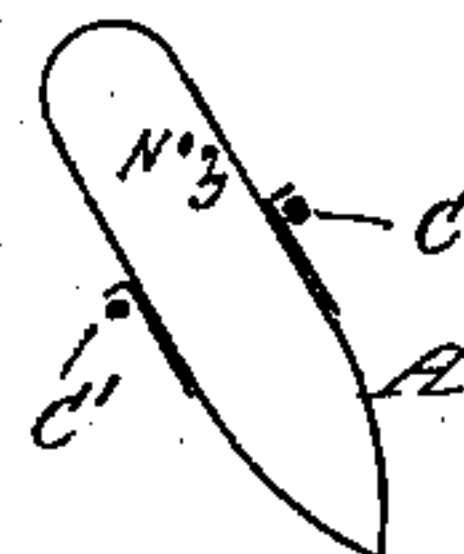


Fig. 14.

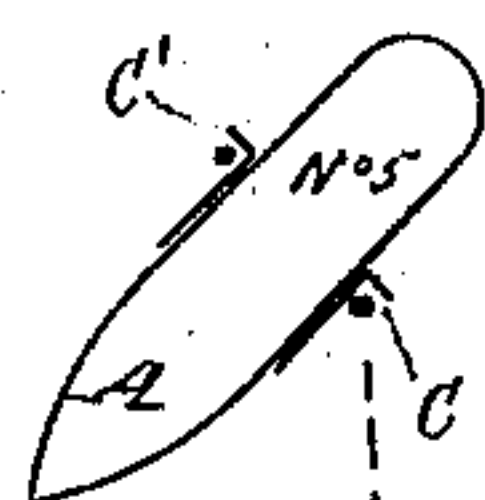


Fig. 15.

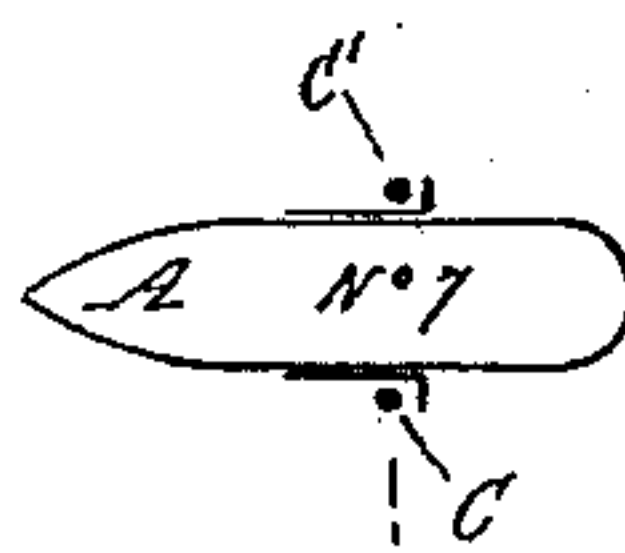


Fig. 16.

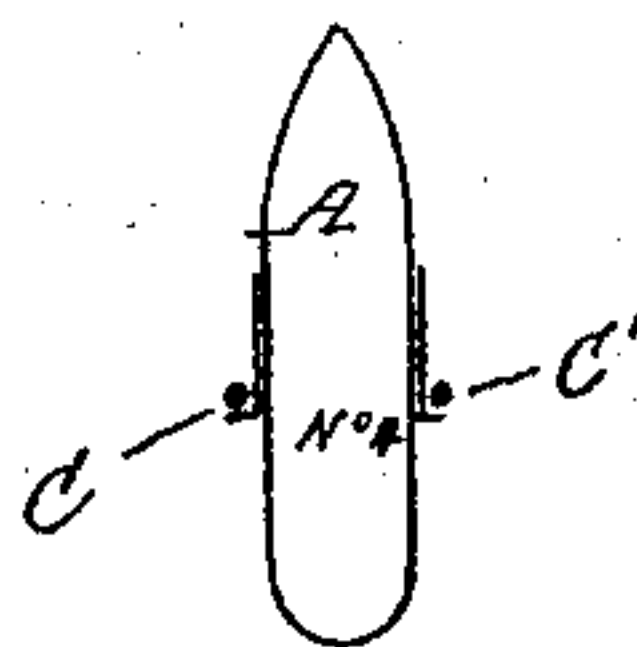


Fig. 17.

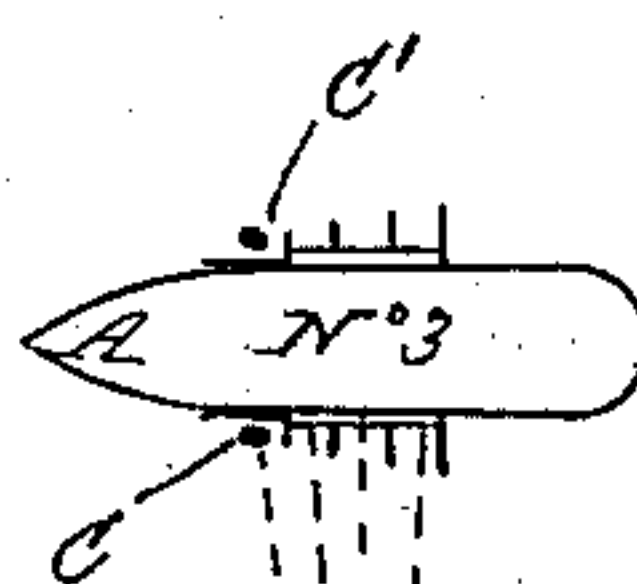
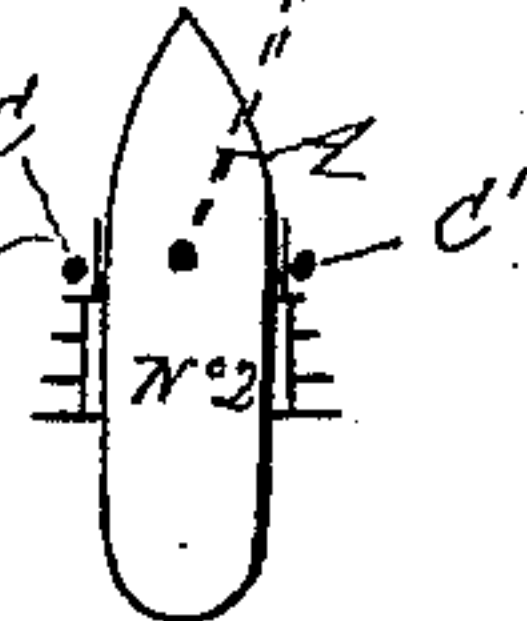


Fig. 18.

Attest

P. C. Fenwick
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UNITED STATES PATENT OFFICE.

GEORGE T. PARRY, OF PHILADELPHIA, PENNSYLVANIA.

MARINE SIGNAL-LIGHT.

SPECIFICATION forming part of Letters Patent No. 290,918, dated December 25, 1883.

Application filed September 27, 1883. (No model.)

To all whom it may concern:

Be it known that I, GEORGE T. PARRY, a citizen of the United States, residing in the city and county of Philadelphia, and State of Pennsylvania, have invented a new and useful Improvement in Marine Port and Starboard Lights, Lanterns, or Signals, of which the following, in connection with the annexed drawings and letters of reference thereon, is a specification.

My invention consists in the combination of one, two, three, or more side-showing illumination lights, lanterns, or signals with each of the ordinary port and starboard lights, lanterns, or signals of a vessel or other marine craft, whereby the position of the vessel or craft can certainly be determined whatever may be the relative position of one vessel to another or the direction of movement of one vessel with respect to the position or movement of the other.

It may be well known that vessels of all nations use red and green lights to indicate their positions and avoid collisions, if possible. These lights are placed at the end of a long box, the front, one side, and top of which are open. The green light is placed on the right or starboard side and the red on the left or port side. The location of these light or signal boxes in sailing-vessels is usually on the rigging or side of the vessel near the foremast.

The object of my invention is to present to the eye either an auxiliary red or green light, lantern, or signal, or any desired number of such red or green lights at all times, whatever may be the relative angular position of the vessels, and at the same time the ordinary port and starboard lights not be interfered with.

In the accompanying drawings, Figure 1 is a side view of a vessel with my improved lights, lanterns, or signals applied to it. Fig. 2 is a top view of the same. Fig. 3 is a horizontal section of one of the boxes with the lights, lanterns, or signals shown in Figs. 1 and 2. Fig. 4 is a modification of plan shown in Fig. 3. Fig. 5 is another modification of the same, and Fig. 6 is still another modification thereof. Fig. 7 is a view of the lights as

seen from a diagonal position, as indicated by the arrow 1* in Fig. 2. Fig. 8 is a diagram showing the vertical guards or shields of the extension of the box, all of the same length. Fig. 9 is a similar view, showing the same of different lengths and in reversed position of that shown in Fig. 2. Fig. 10 is a diagram showing the guards as in Fig. 2. Fig. 11 is a diagram showing a modified form of the extension of the lantern-box with guards of different lengths; and Figs. 12, 13, 14, 15, 16, 17, 18 are diagrams of vessels with lights, both old and as improved by me, which I shall refer to in describing my invention.

A in the figures may represent a boat of any kind upon which the lights are used.

B B' are the light, lantern, or signal boxes, mounted in any appropriate manner upon the right and left or starboard and port sides of the boat. These boxes are open at the top, front, and one side, and extend forward considerably beyond the point where the light, lantern, or signals C C' are located, their side and bottom portions being rounded off, as at a. In the corner or angle of one of these boxes the red light, lantern, or signal C is placed, while in the corner or angle of the other the green light, lantern, or signal C' is applied. Thus far described the boxes are common. To these boxes I have added the rectangular extensions B² B³, and constructed the same as follows: The extension of each box has its bottom, top, sides, and ends closed, so as to form a chamber for a light, lantern, or signal, or a series of chambers for a series of lights, lanterns, or signals. Through the outer side of each box a number of holes, b, are cut, and into the port-side holes red glasses are placed, while in the starboard-side holes green glasses are set. Beneath these holes, and extending out laterally beyond the bottom portion of the port light, lantern, or signal box, there may be a guard or shield, c, and up from this guard a series of vertical guards, d, are extended and united to a horizontal top guard or extension, f, which corresponds with the bottom guard, c, as shown. These guards d are preferably of different widths, and arranged as illustrated in Figs. 2, 3, 4, 5, 6, and 10 of the drawings; but they might be con-

constructed and arranged as shown in Figs. 8, 9, and 11, and still produce a useful effect. If the extensions $B^2 B^3$ of the light-boxes are made as shown in Figs. 1, 2, 3, and 4, auxiliary lights, lanterns, or signals $g g'$ are placed within the chambers of the extensions, and lights, lanterns, or signals $C C'$ in the angles of the boxes $B B'$ proper, as shown. The light, lantern, or signal C' is provided with green glass and the one C with red glass.

For increasing the effect of the light, a reflector, i , may be placed behind the same in the chamber of each of the extensions. Instead of this reflector, the chamber of each extension may be divided by partitions into several compartments, as in Fig. 5, and each compartment may have a light placed in it.

In Fig. 6 I have shown an opening, j , to be in the back of each of the light-boxes $B B'$ proper, and an oblique reflector, i' , is placed in rear of each of the side-light holes b ; and it is proposed with this construction to light up the chambers of the extensions $B^2 B^3$ and illuminate the glasses at the holes b by the lights, lanterns, or signals $C C'$, while these lights serve their usual functions of red and green signals at port and starboard sides of the vessel. This may not be allowed under maritime laws; but I desire my invention to include such construction, as a useful result may be secured thereby. The horizontal guards $c f$ of the respective lights prevent upward and downward escape of the rays, while the vertical guards d serve for preventing all of the glasses in the side of the extension being seen when two vessels are in the respective positions shown in Fig. 17.

It is one of the objects of my invention to have the number of side lights which are exposed to view serve as an index as to the exact position of the vessel—that is, if one side light is exposed, it will be understood from a signal-code that the vessel exposing such light in addition to the port or starboard light is in a certain position; if two side lights are exposed, she is in another position, and so on according to the number of lights exposed.

By an inspection of the diagrams from Fig. 10 to 18, inclusive, in connection with the following description, the operation and utility of my invention will be understood.

Referring to Fig. 12, a vessel, No. 1, with ordinary lights, is coming on a line, with both the green and red lights visible; but should the vessel turn either to the right or left the green or red light becomes invisible by reason of its being shut off by the turn of the vessel—that is, No. 2, Fig. 13, by turning to the right, shuts off the green light, and No. 3, Fig. 14, by turning out, shuts off the red; but in a misty and foggy night, when the masts and hull of a vessel are invisible, the lights shown in Figs. 12, 13, 14, 15, 16 lead to much confusion and often cause collisions. Thus, if vessel No. 4, Fig. 15, is sailing north and sees the red light of 5 (same figure of drawings) she cannot tell whether 5 is coming toward her or

whether she is crossing her bow, as in Nos. 6 and 7, Fig. 16, the green light in both cases being out of sight. This often causes anxiety to the pilots, and is the source of danger. By my plan of lights, Figs. 17 and 18, in a mist or fog I can show accurately the position of any approaching vessels, thus adding safety where none now exists. Suppose vessels Nos. 2 and 4, Figs. 17 and 18, are sailing north, vessel No. 1 is slanting south-west, and vessel No. 3 is going directly west, showing three or four lights, while in vessel No. 1 each light becomes visible as she turns until the whole number is shown, as in vessel No. 3.

My invention as herein described and illustrated may be regarded as simply an addition to the lights now in use, the guards, projecting some distance, serving to hide the side lights, each one showing itself as the vessel turns, until the whole show in a row, clearly indicating to any one that the row of lights is passing square across the bow, instead of making a slanting approach.

I am aware that a combination of a central white signal and side green and red signals, the same operated by the pilot or other person, has been devised prior to my invention; but I am not aware that a stationary auxiliary red signal has been used with the main stationary red signal, nor that a stationary auxiliary green signal has been used with the main stationary green signal, and such auxiliary and main signals applied as port and starboard lights.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In signal-lights for vessels or boats, the combination, with the colored port and starboard lights or lanterns, of one or more secondary lights or illuminated glasses of corresponding colors at the rear of such lights, suitably screened from certain points, as specified, but having outer side exposure, whereby as the vessel turns in her course one, two, or more lights or illuminated glasses of a certain color are in turn exposed, thus with certainty indicating the vessel's course, substantially as described.

2. Port or starboard lights for vessels or boats, comprising front corner light, signal, or lantern boxes, $B B'$, and extension or side illumination-chambers, $B^2 B^3$, arranged in rear of the boxes $B B'$, and provided with vertical partition-guards, and with holes in their sides between the guards, covered with colored glass, substantially as and for the purpose described.

3. Port and starboard lights for vessels or boats, comprising a front corner light, lantern, or signal, side extension illumination chamber or chambers in rear of the front corner light, and a reflector or reflectors within the extension illumination chamber or chambers, substantially as and for the purpose described.

4. A port or starboard light for vessels or boats, comprising a main front corner light, lantern, or signal box and an auxiliary rear extension or side illumination-chamber, pro-

vided with colored glasses corresponding with the mainlight, lantern, or signal, which glasses are successively exposed to view as the vessel or boat changes its position, substantially as 5 and for the purpose described.

5. Port or starboard lights for vessels or boats, comprising front corner light, lantern, or signal boxes, B B', and rear extension or side illumination-chambers, B² B³, having ver-

tical and horizontal guards, and holes covered 10 with colored glass in their sides between the partitions, substantially as and for the purpose described.

GEORGE T. PARRY.

Witnesses:

S. S. GOWES,

WM. S. DOWDY.