

(No Model.)

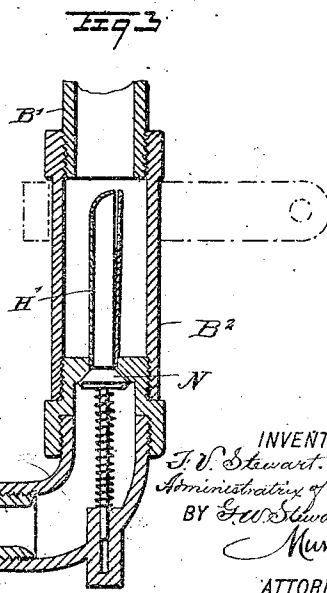
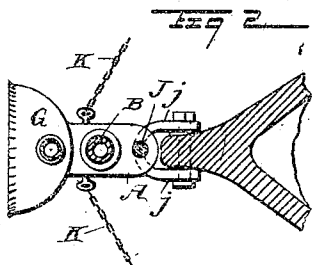
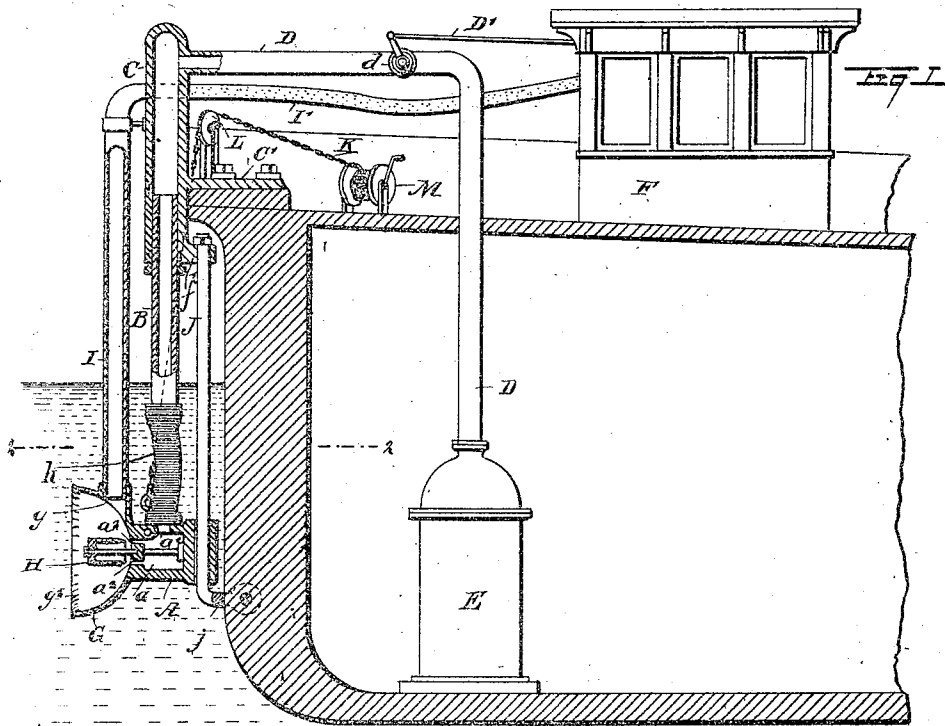
G. W. STEWART, Dec'd.

F. V. STEWART, Administratrix.

MARINE SIGNAL.

No. 515,624.

Patented Feb. 27, 1894.



WITNESSES:

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UNITED STATES PATENT OFFICE.

FRANCES V. STEWART, OF ATLANTA, GEORGIA, ADMINISTRATRIX OF
GEORGE W. STEWART, DECEASED.

MARINE SIGNAL.

SPECIFICATION forming part of Letters Patent No. 515,624, dated February 27, 1894.

Application filed March 31, 1893. Serial No. 468,512 (No model.)

To all whom it may concern:

Be it known that I, FRANCES V. STEWART, of Atlanta, in the county of Fulton and State of Georgia, administratrix of GEORGE W. STEWART, deceased, who did in his life-time
5 invent a new and Improved Marine Signal, do declare the following to be a full, clear, and exact specification of the same.

The invention relates to apparatus adapted
10 to signal from one vessel to another, the water being utilized to conduct the sound, and the object of the invention is to provide an improved and efficient apparatus of this character adapted both to transmit and receive signals, as hereinafter described.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the views.

Figure 1 is a partly sectional side elevation of an apparatus embodying the invention, applied to the bow of a vessel. Fig. 2 is a sectional plan view, on line 2—2 in Fig. 1; and Fig. 3 is a vertical sectional view illustrating
25 a modification.

In constructing an apparatus embodying the preferred form of the invention, a head A is provided, having a chamber *a*, to which an inlet *a'* leads, and at such inlet a pipe B
30 is connected to the head A, for conveying steam or compressed air to the chamber *a*. The upper end of the pipe B, is fitted in the tube C, in which it is adapted to telescope, said tube being closed at its upper end. To
35 the tube C, near the top, a pipe D is connected, which pipe leads to a reservoir, boiler or the like, E, located in the vessel and adapted to contain compressed air or to generate steam for supplying the chamber *a*. A suitable valve *d* is provided in the pipe D, and
40 controlled as by an operating rod, D', from the pilot house F, of the vessel. At its front, the head A is formed with a bell mouth G, and leading to the same are the passages *a*², *a*²,
45 from the chamber *a*. Arranged in connection with the passages *a*², is a suitable steam whistle H, to blow which steam or compressed air is let into the head A, from the pipes B, D, as described, whereby signals by an ar-
50 ranged code may be sounded. The bell mouth G, is adapted to receive the sounds

made by a corresponding signal apparatus located on another vessel at a distance, and at the top or side such bell mouth is provided with an outlet *g*, adapted to receive a pipe or
55 tube I, which extends to near the top of the tube C, where a flexible pipe I', is connected thereto and extends to the pilot house F, or other part of the vessel, thereby conducting the sound received by the bell mouth G. 60

The apparatus is preferably arranged at the bow of the vessel, as shown, and for this purpose the tube C is cast or formed with a flange or laterally-projecting plate C', adapted to be bolted to the deck as shown, and at
65 the lower end of the tube C, a lug *f'*, is formed, to which is secured a depending rod or spindle J, which is formed with a laterally-projecting fork, or diverging arms *j*, adapted to embrace, and be bolted to the vessel at each
70 side of the bow, below the water line. A portion of the steam or air pipe B is made flexible, as at *h*. To the head A, chains K are secured, and carried up over idlers L, to a windlass M on the deck. With this con-
75 struction, it will be seen that the signal may be raised on the spindle J, the pipe B telescoping in the tube C, and may be quickly lowered in any and all positions and depths below the water line and even with the sur-
80 face of the water when it is desired to signal or receive signals. Further the flexible portion of the pipe B, permits of the signal being swung around to describe an arc, with the spindle J as a center, for bringing the
85 apparatus into line with any vessel within its range.

When not required for use, the apparatus may be drawn up out of the water, as will readily be understood. The edge of the bell
90 mouth G, may be slotted to provide resonating fingers or projections *g*², if desired.

In Fig. 3 is shown a slight modification, in which the bell mouth G', the outlet *g'*, and the steam pipe B' are, or may be of the same
95 form as shown in the other figures; but instead of a steam whistle, the signal device is in the form of a reed H', fitted in a coupling section B². At the bottom of the reed a check valve N is provided for preventing entrance
100 of water to the chamber or pipe containing the reed.

It will be evident to the skilled mechanic that the details of the device may be varied. The essential features of the invention are defined in the claims hereinafter made. Also
 5 any suitable means may be provided for retaining the apparatus in the laterally adjusted position.

Having thus described the invention, what is claimed as new, and desired to be secured by
 10 Letters Patent, is—

1. In marine signal apparatus, the combination, with a signal device provided with connections to establish communication with a source of steam or air supply, of a sound
 15 receiver carried by the signal device and having an outlet to receive connections for conducting sound from the receiver to the desired point on a vessel, substantially as described.

20 2. In marine signal apparatus, a head provided with a signal device and operated by steam or compressed air, and a bell mouth on said head having an outlet to receive a pipe
 25 for conducting the sound received by such bell mouth, substantially as described.

3. In a signaling apparatus, the combination of a sliding and swinging signal head having a bell mouth, and a steam or compressed air operated signal device carried by
 30 the said head, substantially as described.

4. In a signaling apparatus, the combina-

tion with a guide rod, of a head having a bell mouth and mounted loosely on said rod, a signal device carried by the head, and means
 35 for raising and lowering the said head, substantially as described.

5. In signaling apparatus, the combination, with a head having a signal operating by steam or air, of connections for supplying the latter, said connections including a tube
 40 adapted to be secured to a deck or the like, and the signal pipe telescoping in such tube, substantially as described.

6. The combination, with a vessel, of a signaling apparatus secured thereto at the bow,
 45 and comprising the following elements: a head having a signal device operating by steam or air, a spindle on which such head is vertically adjustable and pivoted for lateral movement, a pipe leading to such head for
 50 conveying steam or air thereto, a bell mouth on the head, forming a sound receiver, an outlet and a sound conducting pipe leading from the bell mouth, and means for raising and lowering the head and its appurtenances,
 55 substantially as described.

FRANCES V. STEWART,
Administratrix of George Washington Stewart, deceased.

Witnesses:

FRANK BELL,

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