

P. E. COLLINS.
FOG-SIGNAL.

No. 175,592.

Patented April 4, 1876.

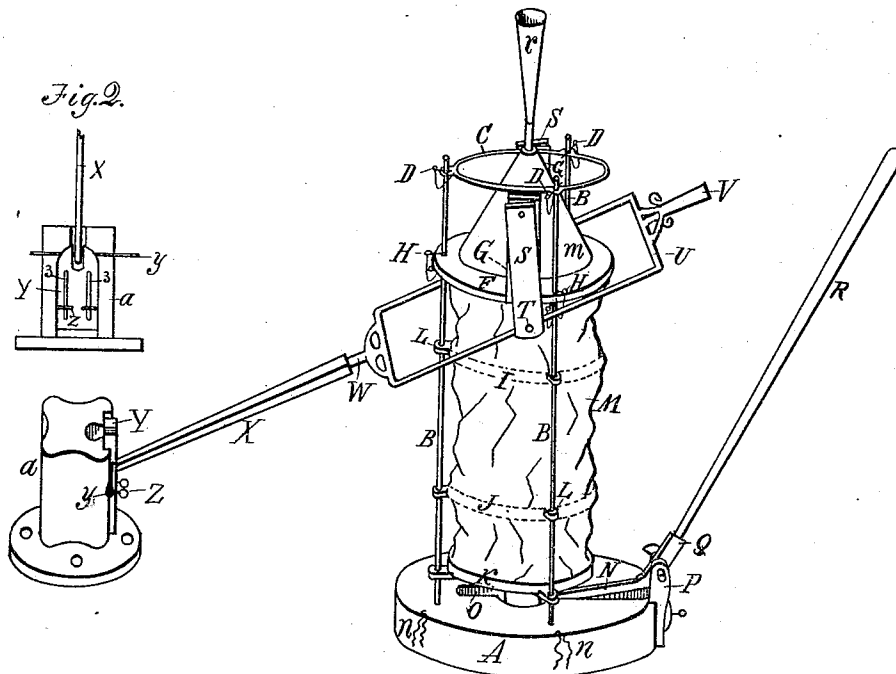


Fig. 1.

Witnesses;
H. E. Remick
H. E. Metcalf,

Inventor;
Paul E. Collins,
Per C. A. Shaw,
Atty.

UNITED STATES PATENT OFFICE.

PAUL E. COLLINS, OF BOSTON, ASSIGNOR OF ONE-HALF HIS RIGHT TO
JOSEPH W. COLLINS, OF GLOUCESTER, MASSACHUSETTS.

IMPROVEMENT IN FOG-SIGNALS.

Specification forming part of Letters Patent No. **175,592**, dated April 4, 1876; application filed
January 8, 1876.

To all whom it may concern:

Be it known that I, PAUL E. COLLINS, of Boston, in the county of Suffolk, State of Massachusetts, have invented a certain new and useful Improvement in Fog-Horns, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which my invention appertains to make and use the same, reference being had to the accompanying drawing, forming a part of this specification, in which—

Figure 1 is an isometrical perspective view, and Fig. 2 view of the post.

Like letters of reference indicate corresponding parts in the different figures of the drawing.

My invention relates, principally, to that class of fog-horns which are designed for use on shipboard; and consists in a novel construction and arrangement of the parts, as hereinafter more fully set forth and claimed, by which a more effective device of this character is produced than is now in ordinary use.

The nature and operation of my invention will be readily obvious to all conversant with such matters from the following description.

In the drawing, A is the base, which is provided with three vertical standards or uprights, B, arranged equidistant from each other, and connected at their tops by the hoop C and pins D. Two end pieces or heads, K F, are arranged to slide vertically between the standards B, and are connected by the tubular bellows M, which may be formed of leather, canvas, or any suitable material for the purpose, and kept distended laterally by interior hoops I J, having guides L, which slide on the standards as the bellows are worked. The upper head F is provided with a circular central opening, (not shown,) covered by the hollow conical cap *m*, carrying at its apex an ordinary fish-horn or trumpet, *r*, preferably arranged in a vertical position. Projecting upwardly from the head F there are two posts or bars, G, to which are pivoted, at their upper ends, the pendulous links S. These links support the frame-work U, which is centrally pivoted thereto at T, and provided at one end with the handle-socket V, and at the other

with the stud W. This stud is fitted into a socket in one end of the bar X, the other end being pivoted, by the rod *y*, in the slide Y, which is rendered vertically adjustable in the post *a* by the slots 3 and pins Z. A bent lever, N, provided with the socket Q, is pivoted in the standard P, attached to the base A, and has its horizontal arm O jointed to the under side of the head K.

The post *a* is designed to be secured to the deck of the vessel or any other proper support, and the whole apparatus may be erected in any convenient position on board the ship in which it is carried.

In the use of my improvement the bellows may be actuated by the lever N or frame-work U by means of the handle R, which is so formed as to fit either of the sockets Q V.

When the lever N is used the handle is inserted in the socket Q, and the head F secured to the standards B by the pins H, the head K being left free to slide on the standards. If, now, the handle is oscillated or worked back and forth, the lever N will be rocked on the pivot P, causing vertical reciprocating movements of the head K, operating the bellows M and blowing the horn *r*, in a manner which will be readily understood from the foregoing description.

When, from any cause, it is more convenient to operate the bellows by means of the frame-work U, the pins H are withdrawn, and the head K firmly secured near the base A by means of the strings *n n*. The handle R is then inserted in the socket V and worked vertically, its center of motion being the pin *y*, and its fulcrum the pivots T, the head F receiving vertical reciprocating movements as the handle is elevated and depressed.

An ordinary bellows-valve (not shown) is provided for the ingress of air to the bellows M, the air, in its ingress, being concentrated at the horn by the cone *m*. It will be obvious, however, that the cone may be omitted, if desired, and the horn attached directly to the head F.

Having thus explained my invention, what I claim is—

1. In a fog-horn, substantially such as de-

scribed, the base A, standards B, heads K F, bellows M, horn *r*, pins H, lever N, and handle R, combined to operate substantially as and for the purpose set forth and specified.

2. In a fog-horn, substantially such as described, the base A, standards B, heads K F, horn *r*, strings *n*, frame-work U, links S, bar

X, handle R, and post *a*, constructed and arranged to operate substantially as and for the purpose specified.

PAUL E. COLLINS. [L. S.]

Witnesses:

M. PENDLETON,
E. H. BEAN.