

(No Model.)

E. E. MANN.

ADJUSTABLE REED FOR SIGNAL BUOYS.

No. 341,670.

Patented May 11, 1886.

FIG. 1.

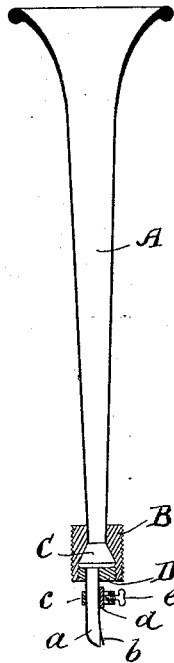


FIG. 2.

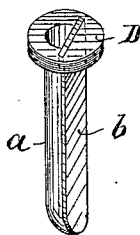


FIG. 3.

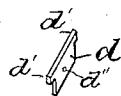
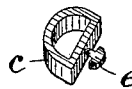


FIG. 4.



Witnesses.
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UNITED STATES PATENT OFFICE.

EDGAR E. MANN, OF BOSTON, MASSACHUSETTS.

ADJUSTABLE REED FOR SIGNAL-BUOYS.

SPECIFICATION forming part of Letters Patent No. 341,670, dated May 11, 1886.

Application filed September 25, 1885. Serial No. 173,122. (No model.) Patented in England September 25, 1885, No. 11,438; in Canada September 28, 1885, No. 22,533, and in France September 29, 1885, No. 171,400.

To all whom it may concern:

Be it known that I, EDGAR E. MANN, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Adjustable Reeds for Signal-Buoys, (this device being patented in England, No. 11,438, dated September 25, 1885; in Canada, No. 22,533, dated September 28, 1885; in France, September 29, 1885, No. 171,400,) of which the following is a specification.

The object of my invention is to produce a horn suitable for signal-buoys, and that will give forth a sound that can be heard for a great distance, and the tone of which can be regulated as desired.

The invention consists in certain details of construction and arrangement of parts, hereinafter fully described, and pointed out in the claims.

Referring to the accompanying drawings, Figure 1 is a longitudinal vertical section of a horn embodying my invention. Fig. 2 is a view of the reed. Fig. 3 is a view of the adjustable plate. Fig. 4 is a view of the adjustable strap and set-screw.

A represents a horn, which may be of any suitable size, and to the lower or smaller end of which is secured a plug, B, to be inserted in a suitable part of a buoy. Within the plug B is a conically-shaped chamber, C, to the upper contracted end of which is connected the horn A, so that the air passing from the chamber will be somewhat compressed in being forced through the contracted end, and thus cause a louder sound to pass from the horn. In the lower end of the plug B is secured a cap, D, to which the reed *a b* is attached, *a* being the body, and *b* the tongue. Fitting upon the reed *a b* is a collar or band, *c*, of the shape shown in Fig. 4, the flat side bearing against a plate, *d*, which is placed next to and in contact with the tongue *b*. The band *c* can be moved up or down upon the reed *a b* and held in any desired position by means of a thumb-screw, *e*, passing through the band *c* and bearing against the plate *d*, by which means the note or tone of the horn can be regulated to any desired pitch. The outer periphery of the plug B is screw threaded, so that it can be readily secured to the air-chamber of the instrument to which it is to be attached.

As shown in Fig. 3, the plate *d* is made with supporting-shoulders *d'*, to rest upon the top of the tongue, and also with a dent or depression, *d''*, to receive the point of the screw. The plate serves to distribute the strain of the pressure of the adjusting means, and to prevent the screw from digging into the tongue, and thus injuring its tone. The lower edge may serve as a setting-edge in setting the collar to any line upon the graduated face of the tongue for a desired tone. This entire tone-regulating device I term a "muffler." It will be seen that the plate *d* is held in close contact with the tongue *b* by means of the strap *c* and thumb-screw *e*, so that only that portion of the tongue *b* which is below the plate *d* is free to vibrate. The note or tone can thus be regulated by securing the plate *d* in the desired position, so as to allow more or less of the tongue *b* to vibrate. It will also be seen that by having the reed secured to a cap, D, it can be readily attached to or detached from the horn A, so that if it is desired to employ a larger or smaller reed the one in the horn can be taken out and replaced by one of the desired size.

What I claim as my invention is—

1. The combination, with a horn, A, of a plug, B, having a conically-shaped chamber, C, the cap D, and reed *a b*, as and for the purpose specified.
2. The combination, with the horn and its detachable reed, of a muffler surrounding said reed, said muffler bearing on the tongue and longitudinally adjustable thereon, whereby the tone of the reed may be regulated, as set forth.
3. The combination, with a horn, A, of a plug, B, having a chamber, C, a cap, D, fitting said plug, a reed attached to said cap, and a sliding adjustable collar on said reed, the collar provided with a thumb screw, by which it may be secured in different positions, as set forth.

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

EDGAR E. MANN.

Witnesses:

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