(No Model.)

W. A. DUNLAP.

HORN.

No. 586,356. Patented July 13, 1897.

FIG. 1.

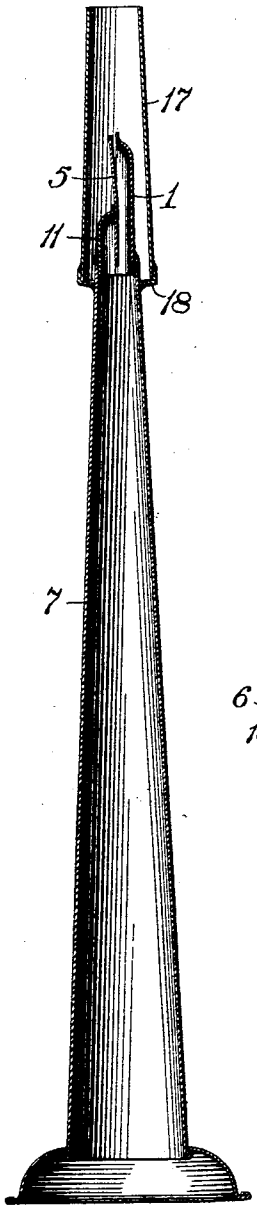


FIG. 2.

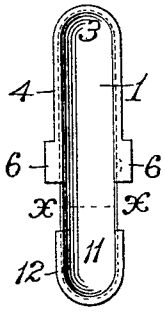


FIG. 4.

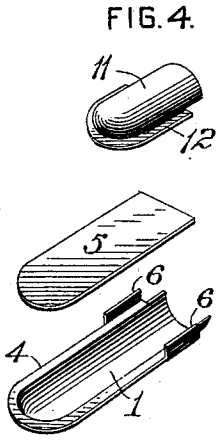


FIG. 3.

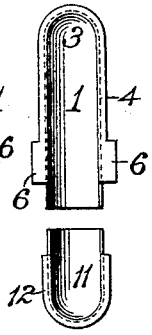


FIG. 6.

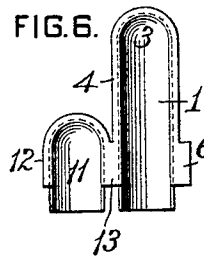


FIG. 7.

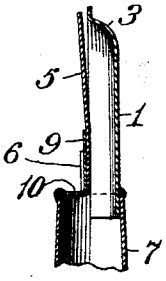
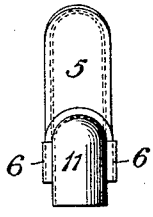


FIG. 8.

FIG. 5.



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UNITED STATES PATENT OFFICE.

WILLIAM A. DUNLAP, OF PITTSBURG, PENNSYLVANIA.

HORN.

SPECIFICATION forming part of Letters Patent No. 586,356, dated July 13, 1897.

Application filed August 6, 1896. Serial No. 601,836. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM A. DUNLAP, a citizen of the United States, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented or discovered certain new and useful Improvements in Horns, &c., of which the following is a specification.

The invention described herein relates to certain improvements in horns or other reed instruments, and has for its object a construction whereby the reed is firmly and securely held in position.

It has heretofore been customary in the manufacture of horns for campaign or other purposes to solder the reed to its frame or holder. It has been found that in such constructions the rapid vibrations quickly rupture the solder-joint and the reed falls out. This objectionable feature is entirely avoided in my improvement, the reed being firmly clamped in position without the use of solder or other means which are liable to injury or destruction by the vibrations of the reed.

The invention is hereinafter more fully described and claimed.

In the accompanying drawings, forming a part of this specification, Figure 1 is a sectional elevation of a horn having my improvement applied thereto. Fig. 2 is a plan view of the blank for forming the reed-frame and stopper. Fig. 3 is a plan view of the completed frame and stopper. Fig. 4 shows a perspective of the several parts. Fig. 5 is a plan view of the frame, reed, and stopper secured together. Fig. 6 is a plan view of a modified form of blank. Fig. 7 is a longitudinal section, and Fig. 8 a transverse section showing a modified form of stopper.

In the practice of my invention the reed frame or holder 1 is formed by stamping or suitable means from a piece of metal, as tin. The part 1 is made in the form of a semicylinder, having one end closed by a wall 3, preferably rounded or curved, as shown in Figs. 1, 2, 3, 4, and 7. The edges of the part 1 are preferably formed with an outturned flange 4 for supporting the edges of the reed 5, which may be formed of any suitable thin metal, but preferably brass. The frame or holder 1 is formed with lugs 6, which are adapted to be bent over into the edges of the reed and firmly clamp the latter upon the frame.

As shown in Figs. 1 and 7, the frame, with the reed clamped thereon, is inserted in the small end of the horn 7 and secured in position by solder or other suitable means. As the reed and its frame close only about half of the opening in the end of the horn, provision is made for closing the other portion of the opening by means of a strip of metal 9, having an upturned end 10, which may be clamped on top of the reed by means of lugs or wings 6, as shown in Figs. 7 and 8.

In Figs. 1, 4, and 5 is shown a construction where a portion of the opening in the horn is closed by a semicylindrical piece of metal 11 of a shape similar to the frame and having one end closed by a wall preferably curved or rounded for convenience of manufacture. The closing-piece or stopper 11 is provided along its edges with flanges 12, so as to permit of its being clamped upon the reed by the lugs or wings 6. As shown in Figs. 2, 3, and 6, the frame 1 and stopper 11 may be formed at one operation from a single piece of metal. When formed as shown in Fig. 2, the blank is cut in the line $x\,x$, thereby forming the two parts ready to be secured together on opposite sides of the reed.

In the blank shown in Fig. 6 the frame and stopper are connected by a web 13, which is adapted to form the connection between the frame and stopper. When using the form of blank shown in Fig. 6, the reed is placed on the frame, the stopper turned over into the reed, and the parts secured together by bending the lug 6 over onto the flange on the stopper.

The mouthpiece 17 is attached by solder or other suitable means to a ring 18, which is soldered or otherwise secured to the horn.

It will be observed that it is characteristic of my improvement that the reed or other parts which are subjected to vibration are attached to the frame or holder in such manner that the attaching means will not be broken or injured by vibrations.

I claim herein as my invention—

1. The combination of a semicylindrical

reed-frame, a stopper, one of said parts being provided with laterally-projecting wings adapted to be bent over around portions of the other part, so as to secure said parts together, and a reed arranged between the frame and stopper, substantially as set forth.

2. The combination of a semicylindrical frame, a reed, a semicylindrical stopper and clamps for securing said parts together, substantially as set forth.

In testimony whereof I have hereunto set my hand.

WILLIAM A. DUNLAP.

Witnesses:

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