

E. TESTE.
 REED FOR MOTOR HORNS AND THE LIKE.
 APPLICATION FILED DEC. 28, 1908.

1,000,307.

Patented Aug. 8, 1911.

Fig. 1.

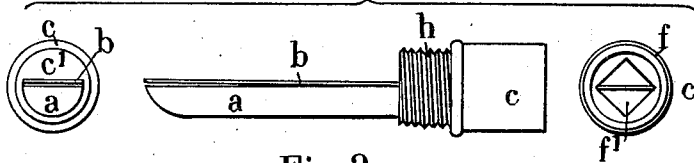


Fig. 2.

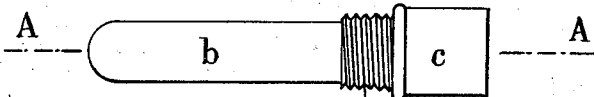


Fig. 3.

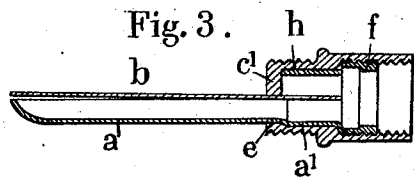


Fig. 6.

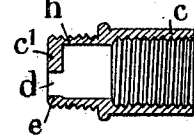


Fig. 8.



Fig. 7.

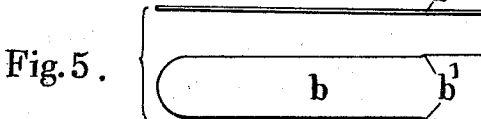
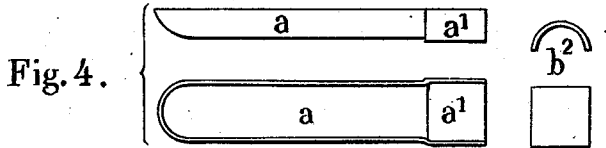
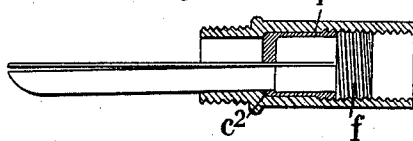


Fig. 10.



WITNESSES
W. M. Avery
J. P. Davis

INVENTOR
Etienne Teste
 BY *Munn & Co.*
 ATTORNEYS

UNITED STATES PATENT OFFICE.

ETIENNE TESTE, OF PARIS, FRANCE.

REED FOR MOTOR-HORNS AND THE LIKE.

1,000,307.

Specification of Letters Patent.

Patented Aug. 8, 1911.

Application filed December 28, 1908. Serial No. 469,579.

To all whom it may concern:

Be it known that I, ETIENNE TESTE, of 18 Rue des Bois, in the city of Paris, Republic of France, machine-maker, have invented

5 Improvements in Reeds for Motor-Horns and the Like, of which the following is a full, clear, and exact description.

As is known it is necessary, in order that motor and similar horns shall emit a full and resonant sound, that the reed shall be properly adjusted, so that the flexible metallic tongue can vibrate in a normal manner. Hitherto this adjustment of the reed has presented considerable difficulty, owing to the method adopted for mounting the flexible tongue on the shell arranged beneath it. The tongue has in fact either been soldered or lapped on to the sleeve forming the extension of the shell. In the former case it frequently happens that the metal used in soldering finds its way between the flexible tongue and the shell with the result that the tongue becomes immovable for part of its length and is thereby prevented from vibrating properly. In the second case the end of the flexible tongue is fitted to the sleeve forming the extension of the shell, and is turned over by means of a suitable tool so as to apply itself against the inner wall of this sleeve and this turning up of the end of the tongue results in bending the metal which in consequence vibrates imperfectly. Furthermore when either of these two methods of attaching the flexible tongue is adopted the tongue cannot be detached and it is therefore almost impossible to clean the tongue and the sleeve.

The object of the present invention is to remedy these defects and it consists in providing a reed for motor horns and the like whereof the different parts can be detached with the greatest ease, either for cleaning purposes, or for restoring the curvature when damaged. This system of detachable reed is characterized essentially by the fact that the shell and the vibrating tongue are independent of one another and are held together by compression in the sleeve, the one end of which is provided with a semicircular opening corresponding to the section of the combined shell and tongue. This compression is effected by a threaded plug which screws inside the sleeve and presses on the assembled shell and tongue, said plug being

55 provided with an aperture for the passage

of air, and when unscrewed allowing the reed to be detached.

The invention is illustrated in the accompanying drawing in which:

Figure 1 shows a side elevation and end views of the reed made in accordance with the present invention. Fig. 2 is a corresponding plan view of the same. Fig. 3 is a vertical longitudinal section along the line A—A of Fig. 2. Fig. 4 shows separately, in side elevation and plan, the shell situated underneath the vibrating tongue. Fig. 5 is an elevation and plan of this tongue. Fig. 6 is a vertical longitudinal section of the sleeve. Fig. 7 shows an end elevation and plan of a key fitting on the end of the flexible tongue. Fig. 8 shows the tightening plug in face view and profile. Fig. 9 is an elevation of a turnkey for screwing up and unscrewing the tightening plug. Fig. 10 illustrates a sectional view of a modification.

As can be seen from the drawing, the reed is composed, as usual, of a semi-cylindrical shell *a* one end of which is open, while the other end is closed by a rounded part, and of a flexible metallic tongue *b* placed upon this shell. At a distance of about half an inch from its open parts this shell is provided with a shoulder *a*¹ (Fig. 4). The flexible metallic tongue *b* is also provided on each side with a shoulder *b*¹ arranged at the end of said tongue (Fig. 5). The shell *a* and the tongue *b* are fitted into a sleeve *c* the one end of which is provided with a semicircular opening *d* for the admission of the shell and tongue. The size of this opening *d* is such that it forms, on the inside, a ledge *e* forming a point of support for the shoulder *a*¹ of the shell *a*. The shoulders *b*¹ of the tongue *b* also find support against the ledge *e* of the sleeve *c* which is closed by a solid part *c*¹. The shell *a* and tongue *b* are kept in position in the sleeve *c* by a key *f*² which is hollow and of semi-circular shape, as shown in Fig. 7. A plug *f* which can be screwed into the sleeve *c* is intended to compress the ends of the shell *a* and the tongue *b* so as to apply the shoulders of these parts against the bottom of the sleeve. The plug *f* is provided with a square opening to allow of the escape of the expelled air (Fig. 8). This opening is also adapted to take the end of a turnkey *g* (Fig. 9) by means of which the plug *f* can be screwed or unscrewed in the sleeve *c*. This sleeve is provided exter-

nally with a thread h by means of which the reed can be firmly attached to the tube of the horn.

It is evident from the foregoing that the reed arranged in this manner, can be detached with the greatest ease. For this purpose it is sufficient to unscrew the plug f by means of the turnkey g and then push the shell a and vibrating tongue b inside the sleeve c . In this way the shell and tongue can be cleaned separately and the curvature of the tongue can be trued up if necessary. To refit the shell a and the tongue b , they are inserted into the sleeve c and pushed through the opening d thereof. The key b^2 is next placed above the tongue b and the plug f is screwed into the sleeve c which plug, by pressing against the end of the shell a and the tongue b , forces the shoulders a^1 and b^1 of these latter against the ledge e . In addition to facility afforded for detaching and attaching, this arrangement allows the metallic tongue b to vibrate in a normal manner, the vibration being set up along the whole length of the tongue, and thus giving the instrument a clear and powerful tone.

Fig. 10 of the drawing represents a modification in which the shell a , and the vibrating tongue b are placed before their insertion into the sleeve c in a metal socket i . In this case the socket is provided at one end with a semi-circular opening into which the shell a and tongue b fit, these being held, as in the previous arrangement, by the shoulders a^1 and b^1 . This socket is afterward inserted into the sleeve c which is open at both ends and is provided with an internal shoulder c^2 forming a point of support

for the bottom of the socket. Both this latter and the shell a and vibrating tongue b are tightened in the sleeve c by means of the threaded plug f as described above.

Claims:

1. The combination with an internally threaded sleeve having internal shoulders, of a reed formed of a shell and tongue and extending into the sleeve, means in the sleeve for holding the shell and tongue in position in the sleeve, and an apertured and exteriorly screw threaded plug screwing into the sleeve for clamping the shell and tongue in said sleeve.

2. The combination with an internally threaded sleeve having an opening in one end of a reed formed of a shell and tongue, each provided with shoulders at one end, the shouldered ends being in the sleeve, a key in the sleeve, and an apertured and exteriorly screw threaded plug in the said sleeve.

3. The combination with an interiorly threaded sleeve having a semi-circular opening in one end, forming shoulders therein, a reed formed of a shell and tongue, each provided with shoulders at one end, the shouldered ends of the shell and tongue being in the sleeve, a semi-circular key in the sleeve, and an exteriorly threaded and apertured plug in the sleeve.

The foregoing specification of my improvements in reeds for motor horns and the like signed by me this 15th day of December 1908.

ETIENNE TESTE.

Witnesses:

R. CHIRIOT,
H. C. COXE.