

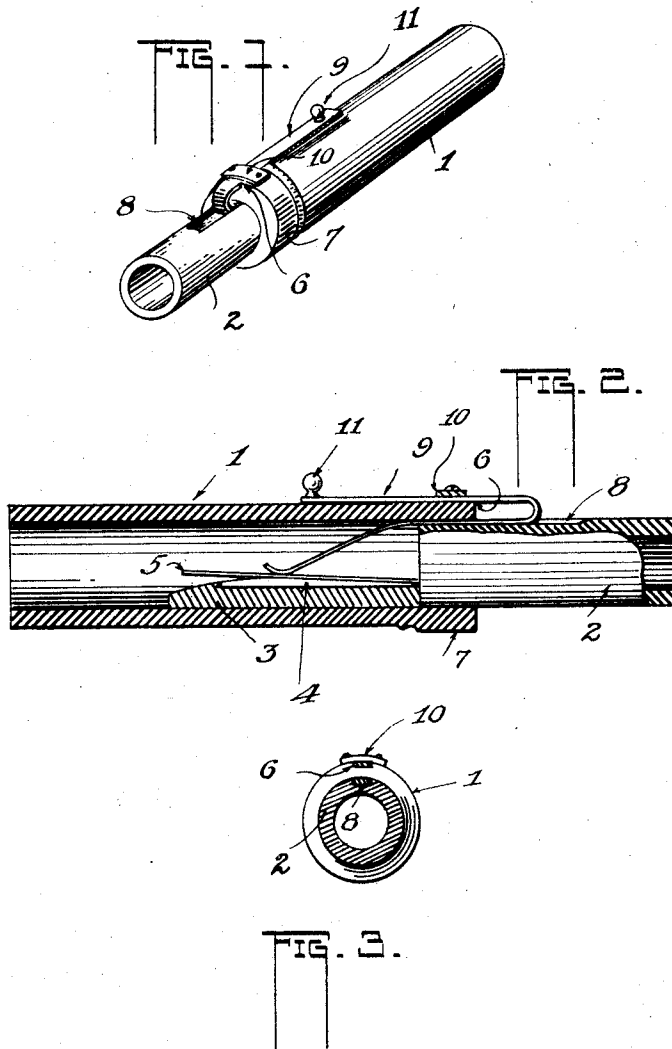
Feb. 19, 1924.

1,484,148

P. S. OLT

MUSICAL INSTRUMENT

Filed May 31, 1921



Inventor

P. S. Olt,

By *L. M. Thurlow*

Attorney

UNITED STATES PATENT OFFICE.

PHILIP S. OLT, OF SOUTH PEKIN, ILLINOIS.

MUSICAL INSTRUMENT.

Application filed May 31, 1921. Serial No. 473,866.

To all whom it may concern:

Be it known that I, PHILIP S. OLT, a citizen of the United States, residing at South Pekin, in the county of Tazewell and State of Illinois, have invented certain new and useful Improvements in Musical Instruments; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to musical instruments of the type which includes a reed as the sound producing means.

More particularly, the invention has to do with a musical instrument employed in orchestra work for producing various musical tones and for imitating various sounds.

The main object of my invention is to provide an instrument of the type named wherein a member is provided adapted to engage the reed and arranged to be adjusted upon the same to vary the sounds produced by having control of the vibrations thereof.

Another object is to provide a form of instrument of the type named whose reed may be made to produce various tones by means of an adjustable member in contact with said reed, said member being so arranged as to be capable of adjustment by the fingers of the hand holding said instrument, to the end that the other hand may be free for other duties.

In the appended drawing:

Figure 1 shows, in perspective, the general appearance of my improved instrument.

Figure 2 is a longitudinal section of the same, and,

Figure 3 is an end elevation showing parts thereof in section.

The numeral 1 designates the body of the instrument which consists of a tubular portion, preferably of hard rubber, into one end of which is adapted to snugly fit a tubular part 2 having at its inner end an extended tongue 3 channeled longitudinally at 4 upon which lies a reed 5 secured at its inner end in suitable manner in the part 2.

So far as described, the device does not greatly differ from the present manner of constructing this type of device, but I shall now describe the novelty of the present construction by which the reed 5 is placed under control so that its vibrations may be gov-

erned whereby the various tones are obtained therefrom.

The body 1 is provided with a longitudinal groove 6 upon its outer surface at one end, in this instance, being within an ornamental enlargement 7 of said body. Likewise, there is a similar groove 8 in the tubular part 2 at that end which engages the bore of said body 1. The said grooves, it will be observed, lie opposite the tongue and reed.

9 is a flat member of ribbon steel, for example, bent into the general form of a U, one extremity being straight and slidable in the groove 6 being held in position therein by a retaining strip 10 lying across it and secured to the enlargement 7. Part of the other extremity lies parallel to the extremity first named, being positioned in the groove 8.

The ribbon member, where it extends into the bore of the body 1 beyond the end of the part 2 and said groove 8, is bent toward the reed 5, which lies opposite said groove 8, and bears upon the same.

Since the ribbon 9 is permanently carried by the body 1, the part 2 may be withdrawn when and as desired should the reed require any adjustment. In replacing the part, its reed must always have proper relation to the ribbon since said part cannot be introduced into the body without the ribbon and the groove 8 registering.

A convenient extension for the finger is carried by the ribbon and may take the form shown at 11, for example. The adjustment of the ribbon along the reed must, of course, alter the rate of vibration of the latter, the resultant tone being higher or lower according to whether the said ribbon is moved toward the free end of the reed or towards its root.

When held in the hand with the end of the part 2 directed into the more or less closed palm, various sounds are produced because of the change in the cavity produced in said palm. Then by means of the extension 11 on the ribbon, the fingers of the same hand may shift said ribbon for producing the desired results.

My device is particularly adapted for orchestra work so that it can be used wholly in one hand and adjusted by the fingers of that hand and without the use of the other in any way which in "trap" work is usually occupied with other duties.

By reference to Figure 2, it will be observed that the tongue 3 is curved at that side upon which the reed lies and that the reed is straight. Usually this surface of the tongue is straight while the reed, which is usually of rubber, as yielding the best results in practice, is curved away from the said tongue to permit the passage of the air for the required production of vibrations in said reed.

But since the bending of the reed requires time, care, and many trials to obtain the proper sound, and since, also, the reed is not inclined to retain its bent form, it is left straight or in its natural flat form. With the curved tongue-surface always of the same form, the tone produced is the correct one, and there is no likelihood of any change in the position of the parts that would result in a change of tone.

I claim:

A musical instrument to be held in and operated by one hand comprising in its construction a tubular member including a

tongue extending from one end thereof, a reed secured in the member overlying the tongue, said tongue being curved longitudinally on the surface thereof on which the reed lies, curving away from the latter, a tubular body into one end of which the member is adapted to fit, a ribbon-like part extending between the member and said body and slidable relative thereto and slidably engaging at its inner extremity the said reed, the same being recurved at its other end, and extending back upon and overlying the outer surface of the body terminating in an extension by which to shift it relatively to said body and said member, and means affixed to the body through which the ribbon-like part is slidable and by which it is guided and slidably secured upon said body.

In testimony whereof I affix my signature in presence of two witnesses.

PHILIP S. OLT.

Witnesses:

T. W. MOTT,

N. J. FRIEDRICH.