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L. BICOCCI

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VARIABLE TONE DUCK CALL OF THE ADJUSTABLE REED TYPE

Original Filed May 12, 1949

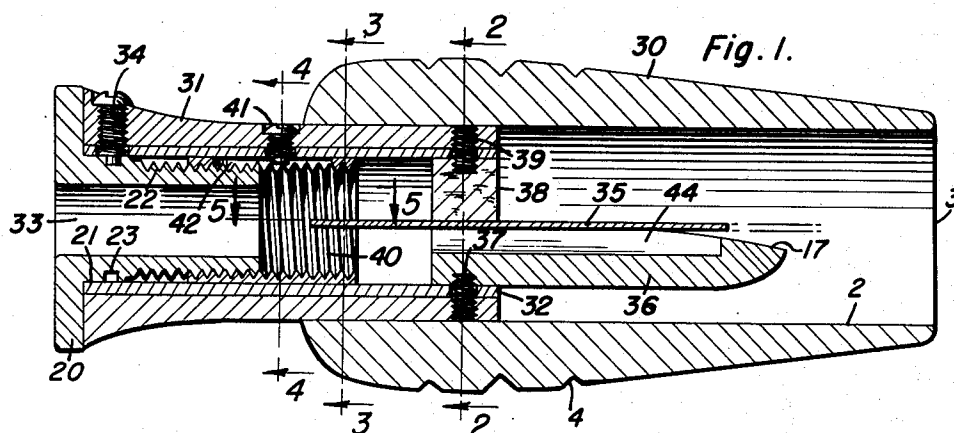


Fig. 3.

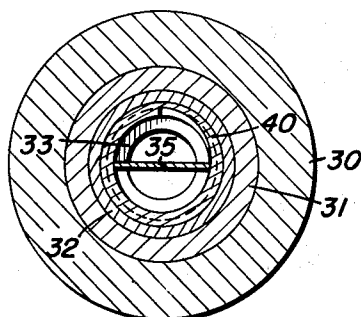


Fig.2.

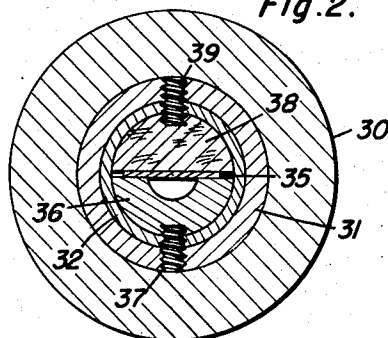


Fig. 5.

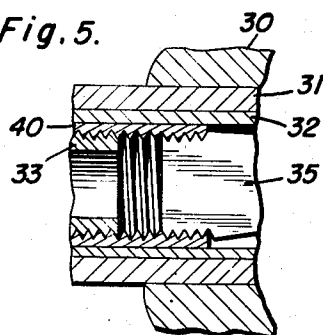
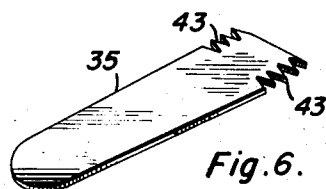
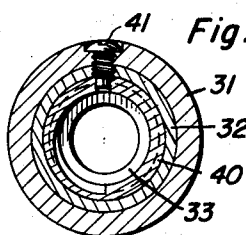


Fig. 4.



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VARIABLE TONE DUCK CALL OF THE
ADJUSTABLE REED TYPE

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Original application May 12, 1949, Serial No.
92,771, now Patent No. 2,556,388, dated June 12,
1951. Divided and this application April 25,
1951, Serial No. 222,786

1 Claim. (Cl. 46—180)

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My invention relates to improvements in variable tone duck calls of the wind instrument, vibratory reed type forming the subject matter of my co-pending application Serial No. 92,771, filed May 12, 1949, issued as Patent No. 2,556,388, June 12, 1951, and of which the instant application is a division.

The primary object of the instant invention is to provide in such an instrument manipulative rotary means whereby the pitch of the tone, or call, may be quickly and easily varied within a wide range of variations by adjustment of the reed relative to a sound box and while the instrument is being held in the mouth and the call sounded.

Another object is to provide in such an instrument for quick easy replacement of the reed in case of damage to the same.

Still another object is to provide a low cost duck call, of the type indicated, in which all parts may be quickly and easily disassembled or assembled for cleaning, and other purposes.

Other and subordinate objects, within the purview of my invention, together with the precise nature of my improvements, will be readily understood when the succeeding description and claim are read with reference to the drawing accompanying and forming part of the specification.

In said drawing:

Figure 1 is a view in longitudinal section of my improved duck call in the preferred embodiment thereof;

Figure 2 is a view in transverse section taken on the line 2—2 of Figure 1;

Figure 3 is a similar view taken on the line 3—3 of Figure 1;

Figure 4 is another similar view taken on the line 4—4 of Figure 1;

Figure 5 is a fragmentary view in horizontal section taken on the line 5—5 of Figure 1; and

Figure 6 is a view in perspective of the reed.

Referring to the drawing by numerals, my improved duck call, as illustrated, comprises a tubular casing 30 forming a mouthpiece with a uniform diameter bore 2 and a front mouth end 3 towards which said casing 30 tapers externally to reduce the diameter of the mouth end 3. The casing 30 is preferably formed of wood and provided with external circumferential grooves 4 to prevent said casing from slipping out of a hand holding said casing to the mouth.

A tubular, rearwardly flaring, reed and sound box holder 31 is removably fitted, with a wedge fit, partway into the rear end of the casing 30

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and projects for a short distance out of said rear end. The reed and sound box holder 31 is also formed of wood, preferably, but with a metal reinforcing liner bushing 32 having a tight friction fit therein.

A tongue or sound box 36 is fitted at its rear end in the front end of the liner bushing 32 to project from said bushing 32 toward the mouth end 3 of the casing 30, and is anchored in said bushing 32 by a screw 37 turned into said holder 31, bushing 32, and the tongue or sound box 36. The tongue or sound box 36 is formed in one side thereof with a longitudinal groove 44 extending from the rear end thereof and terminating adjacent the front end of the same.

A reed 35 is fitted for endwise sliding adjustment between the grooved side 44 of the tongue or sound box 36 and a segmental cork anchoring member 38 fitted in the front end of said bushing 32 and frictionally holding said reed, intermediate its ends, flatwise against the grooved side 44 of said tongue or sound box 36 to extend longitudinally along said grooved side 44 for endwise sliding adjustment along the same. A screw 39 extends through said holder 31 and through the liner bushing 32 into said member 38 and holds said member 38 in place. The front end 17 of the tongue or sound box 36, on the grooved side 44 thereof, is curved to recede from the front end of the reed 35 to permit a blast of air to pass between said reed and tongue or sound box 36 for vibrating the reed 35 over said grooved side 44 to produce the tone or call.

The reed 35 is variable adjustable endwise to vary the pitch of the tone or call by the following means. A metal tuning sleeve 33 is rotatably extended into the rear end of the liner bushing 32, which is to say, the rear end of the reed and sound box holder 31, said sleeve having a circumferential rear end flange 20 fitting against the rear end of said holder 31 and for grasping by the fingers of one hand to rotate said sleeve 33. A rear end external shoulder 21 on said sleeve 33 fits into said liner bushing 32 to form a bearing. Forwardly of said shoulder 21, the tuning sleeve 33 is reduced and externally threaded, as at 22, for a purpose presently seen. A retaining stud 34 threaded through the reed and sound box holder 31, and the liner bushing 32, and extending into a circumferential groove 23 in the tuning sleeve 33 prevents endwise play of said tuning sleeve in the liner bushing 32. The tuning sleeve 33 is threaded into the rear end of an internally threaded coupling sleeve 40 slidably fitted in the liner bushing 32 and held against turning therein

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by a screw 41 threaded through the reed and sound box holder 31 and through the liner bushing 32, and extending into a longitudinal slot 42 in said coupling sleeve 40. The rear end of the reed 35 is formed with side edge, saw teeth 43 fitting in the threads of the coupling sleeve 42, whereby said sleeve 40 operatively connects the tuning sleeve 33 to said reed 35 to slidably adjust said reed under screw feed of said sleeve 40 by the tuning sleeve 33.

In using and operating the described invention the casing 30 is held to the mouth by one hand so that by blowing into the mouth end 3 the reed 35 may be caused to vibrate opposite the tongue or sound box 36 to produce a tone simulating the call of the duck. With the fingers of the other hand, the flange 20 may be rotated to cause screw feed movement of the coupling sleeve 40 so as to effect endwise sliding adjustment of the reed 35 relative to the grooved side 44 of the tongue or sound box 36. Such adjustment of the reed 35 varies the length of the reed which may vibrate opposite the grooved side 44 of the tongue or sound box 36, whereby the tone or pitch of the call may be varied at will.

The foregoing will, it is believed, suffice to impart a clear understanding of my invention, without further explanation.

Manifestly, the invention, as described, is susceptible of modification, without departing from the inventive concept, and right is herein reserved to such modifications as fall within the scope of the appended claim.

Having described the invention, what is claimed as new is:

In a wind instrument of the class described, a

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tubular casing having a front mouth end for use in blowing through the casing, wind responsive means in said casing for producing a tone simulating a duck call including a longitudinally grooved tongue forming a sound box and fixed in said casing, an elongated reed extending along said groove for vibration opposite the same to produce the tone, said reed being longitudinally and slidably adjustable along said tongue to vary the length of reed which may vibrate opposite said groove whereby to vary the pitch of the tone, a manipulative rotary tuning sleeve in the rear end of said casing, and operating connections between said sleeve and reed for adjusting the reed by rotation of said sleeve comprising an internally threaded coupling sleeve threaded onto said tuning sleeve and slidably and non-rotatably connected to said casing for screw feed endwise by said tuning sleeve, said reed having a rear end extending rearwardly beyond said tongue and into said coupling sleeve with side edge teeth fitting into threads of the coupling sleeve to operatively connect said coupling sleeve to said reed for adjustment thereby, and a fixed member in said casing frictionally and slidably engaging the reed between the ends of the reed to hold said reed between its ends flat against said tongue.

LOUIS BICOCCHI.

References Cited in the file of this patent
UNITED STATES PATENTS

Number	Name	Date
2,556,388	Bicocchi	June 12, 1951