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2,608,796

VARIABLE TONE DUCK CALL

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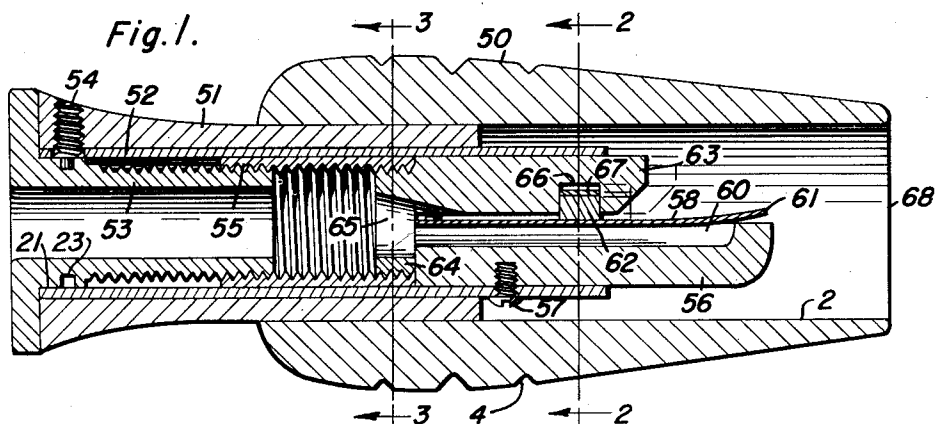
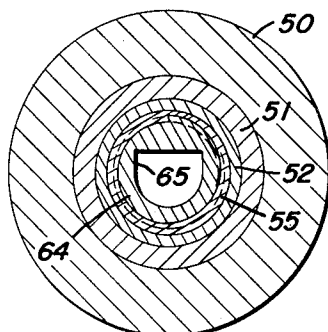


Fig. 3.

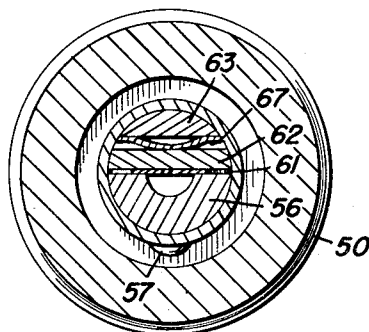


Fig. 2.

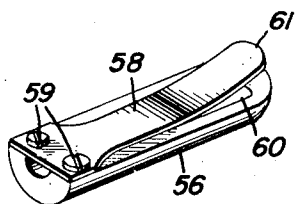


Fig.5.

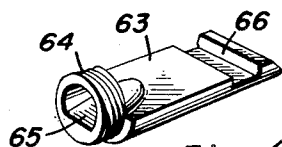


Fig. 4.

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UNITED STATES PATENT OFFICE

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VARIABLE TONE DUCK CALL

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Original application May 12, 1949, Serial No. 92,771. Divided and this application April 25, 1951, Serial No. 222,785

2 Claims. (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, now Patent No. 2,556,388, and of which the present application is a division.

The primary object of the present invention is to provide in an instrument of the class designated for sliding a stop along the reed to vary the length of the reed capable of vibrating, whereby to vary the pitch of the tone of the call, together with means for sliding the stop by operation of a rotary member on the duck call.

Another object is to provide a device of the character and for the purpose above specified which is easy to take apart and put together, for cleaning, or replacement of parts, and is comparatively inexpensive to manufacture and not liable to get out of order.

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 claims are read with reference to the drawing accompanying and forming part of this 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 a view in perspective of the slide bar, and

Figure 5 is a similar view of the tongue or sound box with the reed attached.

Referring to the drawing by numerals, my improved duck call, as illustrated, comprises a tubular casing 50 with a uniform diameter bore 2, a front mouth end 68 toward which the casing 50 tapers to reduce the diameter of said mouth end 68, and external circumferential grooves in said casing for preventing the casing from slipping out of a hand holding the casing to the mouth. The casing 50 is preferably formed of wood.

A tubular, rearwardly flaring reed and sound box holder 51 is removably fitted, with a wedge fit, part-way into the rear end of the casing 50 and projects out of said rear end, said holder being also formed of wood, preferably, but with a metal liner bushing 52 having a tight friction fit therein. The liner bushing 52 extends out of the front end of the reed and sound box holder

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51 into the bore 2 of the casing 50 for a purpose presently apparent.

A tongue or sound box 56 extends out of the front end of the liner bushing 52 and is fitted at its rear end in said bushing 52 and secured therein by a screw 57. The tongue or sound box 56 is provided in one side thereof with a groove 60 terminating adjacent the front end of said tongue or sound box and extending to the rear end thereof.

A flat reed 58 is fixed at its rear end by screws 59 on the rear end of the tongue or sound box 56 to overlie and extend along said groove 60 in bridging relation thereto with a free front end 60 at the front end of said tongue or sound box. As will be understood, by blowing in the mouth end 60 of the casing 60, the reed 58 will be caused to vibrate over the groove 60 to produce a tone simulating a duck call.

A hold-down stop 62 of bar-like form and cork material extends across the reed 58 on the side thereof opposite the groove 60 and is slidably movable along said reed to vary the length of the reed that may vibrate opposite said groove, whereby to vary the pitch of the tone or call as may be desired.

A slide bar 63 for moving the strip 62 is provided and fitted part-way into the front end of the liner bushing 52 at the side of the reed 58 opposite the tongue or sound box 56, said slide bar extending out of the front end of the liner bushing 52 and being provided in the rear of said tongue or sound box 56 with a circular eccentric disk 64 externally threaded for a purpose presently seen. The stop 62 is fitted in and slidably extends out of a transverse recess 66 in the slide bar 63 and is backed by a leaf spring 67 in said recess for yieldingly engaging said stop 62 with the reed 58.

For sliding the slide bar 63 the following means are provided. A metal tuning sleeve 53 is rotatably extended into the rear end of the liner bushing 52, which is to say, of the reed and sound box holder 51, said sleeve 53 having a circumferential rear end flange 20 fitting against the rear end of said holder 51 for grasping by the fingers of one hand to rotate said tuning sleeve. A rear end external shoulder 21 on the tuning sleeve 53 fits into the liner bushing 52 to form a bearing. Forwardly of said shoulder 21, the tuning sleeve 53 is reduced and externally threaded for a purpose presently seen. A screw stud 54 extending through said holder 51 and liner bushing 52 into a circumferential groove 23 in the tuning sleeve 53 prevents endwise movement of said tuning

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sleeve 53. An internally threaded coupling sleeve 55 is turned on to the tuning sleeve 53 and screwed tight onto the disk 64 with a sliding fit in the liner bushing 52 and forms with said tuning sleeve 53 a screw feed for sliding said bar 63. The disk 64 is bored, as at 65 to communicate the groove 60 with the coupling sleeve 55 and tuning sleeve 53.

In operating and using the described invention, the casing 50 is held to the mouth by one hand and is blown into at the mouth end 68 to cause the free portion of the reed 58 to vibrate over, or opposite, the groove 60 of the tongue or sound box 56, whereby to produce the tone or duck call. Upon rotation of the tuning sleeve 53, by the fingers of the other hand manipulating the flange 20, the coupling sleeve 55 will be slidably adjusted endwise in the liner bushing 52 longitudinally of the same and the slide bar 63 will be correspondingly adjusted to slide the stop 62 along the reed 58 for varying the length of the reed which may vibrate, so that the pitch of the tone or duck call will be varied. As will be manifest, the stop 62 flexes the reed 58 intermediate its ends, at different distances from the free end 61 of said reed against the tongue or sound box 56, in varying the amount or length of the reed 58 which may vibrate.

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 claims.

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

1. In a wind instrument of the class described, a 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, an elongated reed extending along said groove for vibration opposite the same to produce the tone

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with one end fixed to the tongue, said reed intermediate its ends being flexible against said tongue at different distances from said end to vary the length of the reed which may vibrate opposite the groove whereby to vary the pitch of the tone produced, and means for flexing said reed including a manipulative rotary member in the rear end of said casing, a hold-down stop for said reed slidable along the same, and screw feed means for sliding said stop by rotation of said member.

2. In a wind instrument of the class described, a 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, an elongated reed extending along said groove for vibration opposite the same to produce the tone with one end fixed to the tongue, said reed intermediate its ends being flexible against said tongue at different distances from said end to vary the length of the reed which may vibrate opposite the groove whereby to vary the pitch of the tone produced, and means for flexing said reed including a manipulative rotary member in the rear end of said casing, a hold-down stop for said reed slidable along the same, a slide for sliding said stop, and a screw feed operating connection between said member and slide.

LOUIS BICOCCHI.

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