(No Model.)

A. B. DAVIS.

WHISTLE.

No. 603,555. Patented May 3, 1898.

Fig. 1.

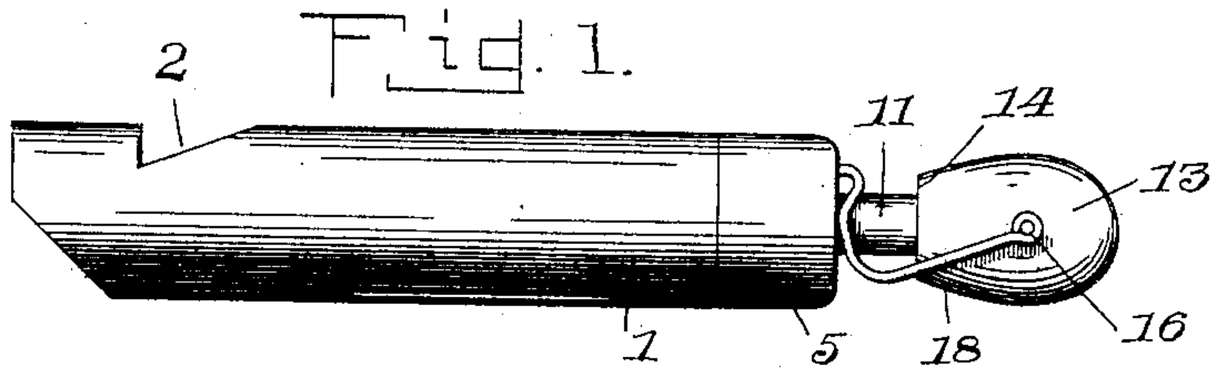


Fig. 2.

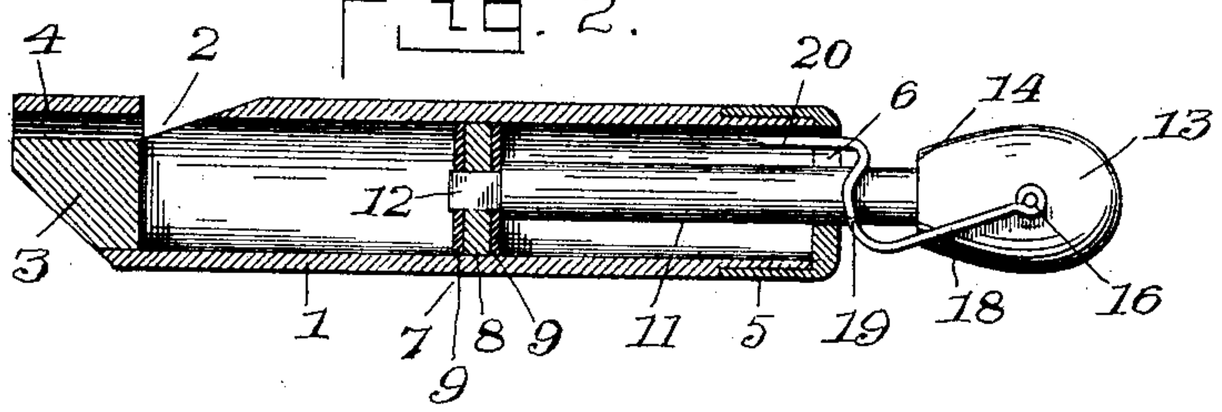


Fig. 3.

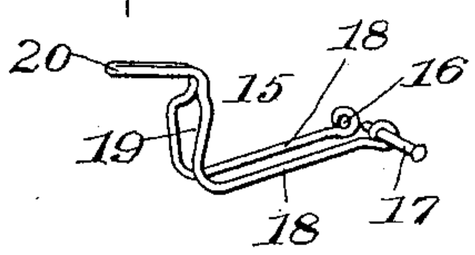


Fig. 4.

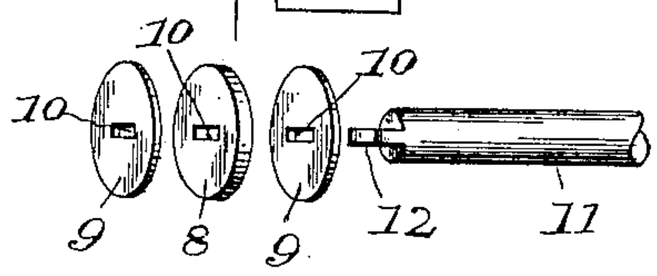


Fig. 5.

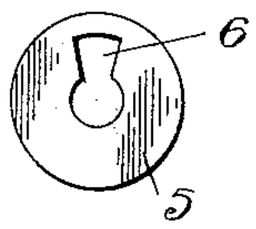


Fig. 6.

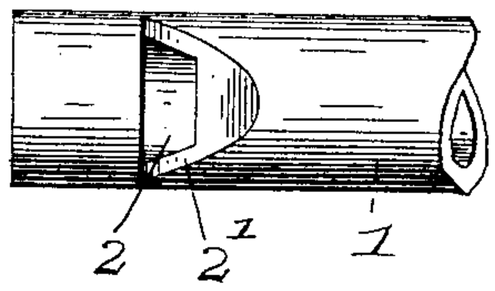
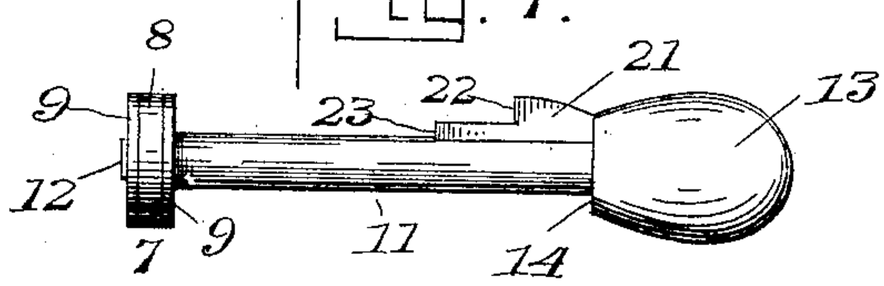


Fig. 7.



Witnesses
Harry W. Hahn,
Victor J. Evans

Inventor
Abram B. Davis.
by John Wedderburn
Attorney

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ABRAM BALLARD DAVIS, OF JERSEY CITY, NEW JERSEY.

WHISTLE.

SPECIFICATION forming part of Letters Patent No. 603,555, dated May 3, 1898.

Application filed July 14, 1897. Serial No. 644,569. (No model.)

To all whom it may concern:

Be it known that I, ABRAM BALLARD DAVIS, of Jersey City, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Whistles; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to whistles of that type wherein are employed movable pistons for regulating the length of the air column.

My object is to provide a whistle of the type aforesaid which will have improved means for gaging the play thereof in the barrel, whereby that play may be increased or diminished, and with a proper manipulation of the piston sounds can be had in close imitation of the cry of the quail or bob-white and the whip-poor-will.

I am aware that whistles provided with movable pistons have heretofore been employed; but to my knowledge such devices have not been provided with means for gaging the play of the piston properly to produce with certainty a given sound imitating the cry of a bird.

In order to accomplish the object aforesaid, I provide a whistle of improved construction, as will appear more fully hereinafter, and the novel features thereof will be recited in the appended claims.

In the accompanying drawings, Figure 1 is a side elevation of my improved whistle; Fig. 2, a longitudinal section thereof; Fig. 3, a perspective detail of the gage; Fig. 4, a similar view showing the parts of the piston separated and in their relative arrangement, together with the end of the piston-rod; Fig. 5, a detail view of the cap; Fig. 6, a detail view of the vent; Fig. 7, a side elevation of a fixed gage applied to the piston-rod, as when the whistle is used for imitating the cry of the whip-poor-will only.

The numeral 1 designates the barrel of the whistle, the same having a vent 2 and provided with a plug 3 in one end, which is cut away, as usual, to define a mouth 4. It is very essential that this barrel be of proper cross-sectional area and length in order that the desired sounds be clear and distinct, and it is necessary that the edge 2′ of the vent be very thin and broad. The rear end of the barrel has a cap 5, which fits snugly in the rabbet in said barrel, and this cap has an inverted keyhole-slot 6 in the end thereof. The piston is shown at 7, the same snugly fitting the barrel, and it is composed of an intermediate felt washer 8 and end washers 9, constructed of tin or wood, all of said washers being glued or riveted together and provided with an elongated mortise 10, located centrally thereof. The piston-rod is shown at 11, the same being of proper size to snugly, yet easily, fit the circular portion of the keyhole-slot 6 and having a tenon 12, adapted for snug reception in the mortise 10. On the outer end of the piston-rod there is a knob 13, having an abrupt shoulder 14, adapted to abut on the cap. This knob is elliptical or oval in cross-section, and the major axis is shown in the drawings as in coincidence with the axis of the keyhole-slot.

It is necessary that the ratio between the interior length of the barrel and the distance between the outer face of the piston and the shoulder 14 be such that when said piston is snug against the inner face of the cap the low-F note will be sounded and that when the shoulder 14 is against said cap the high-F note can be sounded, so that provision is made for the range of one octave. The improved gage employed in connection with my whistle is shown at 15, the same being constructed of a single piece of wire. This wire is practically doubled back on itself and has its ends formed into eyes 16, which are located on opposite sides of the knob and pivoted thereto on the pin 17. The wire is so bent that two substantially parallel arms 18 are provided, which are adapted to lie on opposite sides of the piston-rod. The wire has portions 19 bent at right angles to the arms 18 and constituting an abutment adapted to strike against the cap. These portions 19 are separated a distance slightly less than the diameter of the piston-rod, so that they can be made to tightly straddle the same. The middle or center portion of the wire is seen at 20 and lies substantially at right angles to the abutment part 19 and extends forwardly therefrom and is adapted for reception in the straight portion of the keyhole-slot. It is essential that the parts 19

be so positioned that when they rest against the cap the piston will be in such position in the barrel that the note D can be sounded, and it is also essential that the part 20 be of such length that when withdrawn from the keyhole-slot and made to abut on the cap the piston will be so disposed in the barrel that the note B can be sounded.

In Fig. 7 I have shown the piston-rod equipped with a fixed gage 21, whose shoulder 22 corresponds to the abutment 19 of the pivoted gage described heretofore and whose part 23 corresponds to the part 20. The fixed gage is only employed when the whistle is manufactured expressly for the purpose of sounding the whip-poor-will cry.

The operation is as follows: To sound the three notes of the whip-poor-will, the piston is drawn back until it touches the cap. The first note produced by blowing in the whistle will then be low F. As soon as this note has been sounded the piston should be pushed back into the barrel and the knob so manipulated that the major axis thereof will aline with the axis of the keyhole and the part 20 of the gage will then pass into the said slot, the note being stopped by the abutment of the part 19 on the cap. This operation produces the note corresponding to the syllable "whip," the note being from low F to D. The next operation is to draw the piston back quickly to the cap, thereby producing the note low F again, which gives the syllable "poor." While this note is being blown the piston-rod is turned slightly to bring the part 20 out of alinement with the slot and again pushed into the barrel. This movement is limited by the end of the part 20 striking the cap, and the note from low F to B is sounded, giving the syllable "will." The action is the same with the gage shown in Fig. 7. If it is desired to produce the cry "bob-white," the wire gage is swung back so that it will not strike the barrel at any time, and the shoulder 14 and the piston itself constitute the gaging means. The piston is first drawn back to the cap, and upon blowing the same the note low F will be sounded. This first note produces the syllable "bob" and is short and sharp. After it is finished the same note is blown again and while being blown the piston is pushed rapidly back into the barrel until the shoulder 14 strikes the cap, giving the range of an entire octave, or from low F to high F, and sounding the syllable "white."

It is clear that the whistle can be manufactured only to produce the call "bob-white," the gage then being dispensed with, or it can be manufactured with the swinging wire gage, so that either the bob-white or whip-poor-will call may be given, and it can also be constructed with the fixed gage, as shown in Fig. 7, to give the whip-poor-will call only.

Slight changes of construction can be resorted to in carrying out my ideas, and it is to be understood, therefore, that I do not limit myself to the precise construction herein shown and described, but consider that I am entitled to all such changes as come within the spirit and scope of the invention.

It is evident that the different parts of the whistle may be formed of wood or metal and that the piston-rod may be of wire or other suitable material.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a whistle, the combination with a barrel having a vent and a mouth at one end and its other end provided with a gage-opening, of a piston movable in said barrel, a piston-rod movable through the apertured end, and a gage connected to the piston and having a portion adapted to abut against the end of the barrel and another portion adapted to be loosely received in the opening in said end.

2. In a whistle, the combination with a barrel having a vent and a mouth at one end and its other end provided with a gage-opening, of a piston movable in said barrel, a piston-rod having a knob at its outer end which is adapted to abut on the end of the barrel when the piston is pushed in sufficiently, and a gage pivoted to the knob and having a portion projecting therefrom toward the apertured end and adapted to abut thereon, and a free end projecting beyond said portion and adapted for loose reception in the aperture.

3. In a whistle, the combination with a barrel provided with a vent and mouth at one end, and a cap at the other end having a keyhole-slot, of a piston movable in the barrel, a piston-rod working through the head of the keyhole-slot and having a knob on its outer end, and a gage consisting of a piece of wire having its ends pivoted to the sides of the knob and its intermediate portion bent into members that project beyond the knob toward the end of the barrel and on opposite sides of the piston-rod being adapted to tightly straddle the same, and bent into an abutment adapted to strike the cap, and a guide projecting beyond the abutment and adapted to loosely fit the straight part of the keyhole-slot.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

ABRAM BALLARD DAVIS.

Witnesses:

BENJN. B. DAVIS,

CONRAD E. BECK.