

H. J. CARMODY,
WHISTLE.
APPLICATION FILED FEB. 16, 1918.

1,397,263.

Patented Nov. 15, 1921.

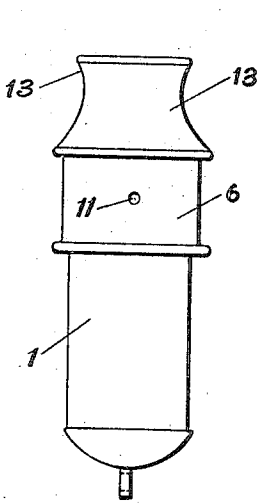


Fig. 1.

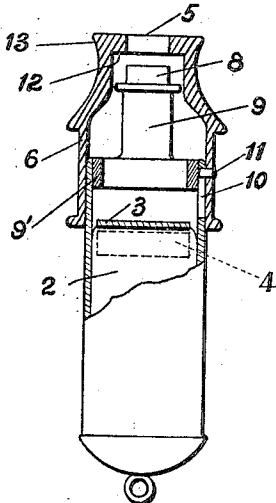


Fig. 2.

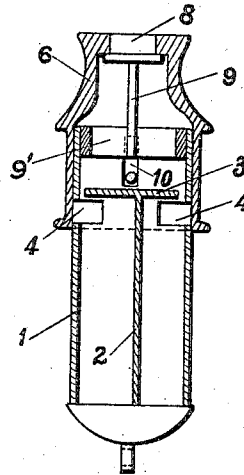


Fig. 3.

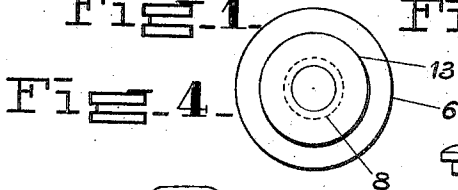


Fig. 4.

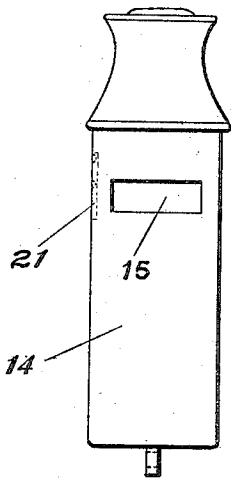


Fig. 5.

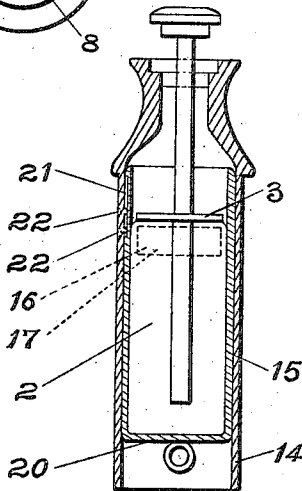


Fig. 6.

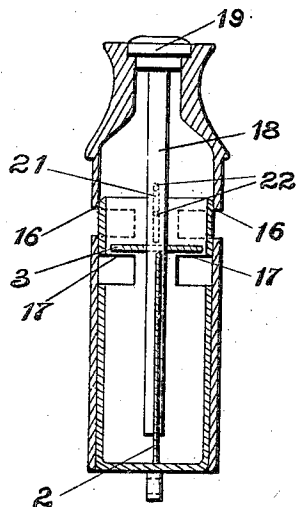


Fig. 7.

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WHISTLE.

1,397,263.

Specification of Letters Patent.

Patented Nov. 15, 1921.

Application filed February 16, 1918. Serial No. 217,719.

To all whom it may concern:

Be it known that I, HAROLD J. CARMODY, a citizen of the United States, residing at Brooklyn Manor, in the county of Queens and State of New York, have invented certain new and useful Improvements in Whistles, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to signals, alarms and similar devices, and with respect to its more specific features, to sounding signals, such as whistles, horns, etc.

One of the objects of the invention is the provision of a device of the character referred to ready at all times to be efficiently operated.

Another object of the invention is the provision of a practical whistle which, when not being operated, will be protected by a connected device from the entry of dirt, particles of lint, or other foreign matter.

Another object of the invention is the provisions of a simple and inexpensive protected whistle capable of being operated practically as readily as an unprotected whistle.

Other objects will be in part obvious and in part pointed out hereinafter.

The invention accordingly consists in the features of construction, combinations of elements and arrangement of parts which will be exemplified in the construction hereinafter set forth, and the scope of the application of which will be indicated in the following claims.

In the accompanying drawing forming part of this specification, and wherein similar reference characters refer to similar parts throughout the several views—

Figure 1 is a side elevation of a whistle embodying the invention with the mouth and vent of the whistle closed;

Fig. 2 is a longitudinal section of the whistle shown in Fig. 1, and with the whistle open;

Fig. 3 is a longitudinal section of the whistle shown in Fig. 1, taken at a different angle from that in Fig. 2;

Fig. 4 is a view of the mouth end of the whistle shown in Fig. 1;

Fig. 5 is a side view of a modified form;

Fig. 6 is a longitudinal section of Fig. 5, with the whistle open; and

Fig. 7 is a longitudinal section of Fig. 5, with the whistle closed.

The dimensions illustrated are somewhat larger than actual size, in order to more clearly show the parts.

Whistles, horns, etc., not infrequently become inoperative or inefficiently operative by reason of the clogging of the whistle passages by extraneous matter, and this is especially the case where the whistle is small and carried in the pocket. In the case of a police whistle, it is most desirable that it shall be ready for efficient operation at all times, and the present invention has for an important object the protection of a whistle which will fulfil the requirements of a police whistle and be ready for operation on the instant.

Referring now more specifically to the drawings wherein the invention is illustrated as embodied in the type of whistle generally employed by the police, the numeral 1 indicates the body of a whistle comprising a cylindrical chamber having a longitudinally extending partition 2 dividing the chamber into two compartments which preferably are of different volume, the partition 2 being set somewhat off the central axial line. The numeral 3 indicates a circular plate extending transversely of the body of the whistle and fixed to the partition 2, the edges of this plate being spaced from the wall of the body adjacent the vents or vent openings 4 in said body so that the air may pass around the edge of the plate 3 in the body and out of the vents 4.

In order to protect the whistle from the entry of dirt, particles of lint, or other foreign matter, the disposition of which within the whistle or its passageways would interfere with its efficient signaling operation and even render it soundless, means are provided for opening and closing the openings in the whistle through which such foreign matter might enter. In the present embodiment there are two openings or vents 4 and a third opening, or mouth 5, through which latter air enters the whistle in normal operation. The means employed for prevent-

ing the entry of foreign matter may be characterized as valves inasmuch as such means has a function of opening and closing ports, such as the vent and mouth referred to. In the present embodiment vent protecting and mouth protecting valves are employed, the vent protecting valves being embodied in a sleeve 6, movable longitudinally back and forth on the body of the whistle so as to open and close the vents 4. Also in the present embodiment the mouthpiece of the whistle is one with the sleeve 6 and is therefore movable longitudinally relative to the whistle body with the sleeve 6, and the valves embodied in the latter. In this wise the mouthpiece may be considered as having an extension, viz. the sleeve 6, which extension not only forms the valves for the vents but also associates the mouthpiece and these valves with the body in a practical and effective manner.

In the present embodiment the valve for the mouth 5 comprises a shouldered cylindrical valve 8, having a flat upper end, this valve being adapted to nicely and easily fit the mouth or opening 5 in the outer end of the mouthpiece so as to close the same against the entry of foreign matter. In the modification illustrated in Figs. 1, 2 and 3, the valve 8 is supported within the whistle by a stem 9, the stem in the present embodiment comprising a flat metallic plate fixed to a ring 9', the latter being fixed to the inner wall of the body 1, the stem 9 lying in about the same plane as the partition 2. As shown, the valve 8 is stationary relative to the body 1, and, as will hereinafter appear, the valve 8 will be disposed within the mouthpiece when the mouth 5 is open and ready to be operated.

In operating the form illustrated in Figs. 1, 2 and 3, the mouthpiece portion is moved relative to the body portion until the sleeve or valve portion 6, which may be uninterrupted in peripheral extent, covers the vents 4. In this relation between the body and mouthpiece the valve 8 will be positioned in the mouth 5 so as to close the latter, and the flat upper face of the valve 8 will be flush, or substantially so, with the plane of the outer end of the mouthpiece. The extent of movement between the body 1 and the mouthpiece in the vent closing direction may be limited by the provision of a slot 10 in the body 1 engaged by pin 11 carried by the sleeve 6. Or the shoulder in the stationary valve 8 may be so positioned as to cooperate with the inner face of a flange 12 of the mouthpiece to limit the valve closing movement. When the openings in the whistle are thus closed, the interior of the device is practically sealed against the entry of foreign matter, as referred to, and it may be kept in the pocket without fear of its efficiency being impaired by the lodgment of extraneous mat-

ter within the same. When it is to be used, the mouthpiece may be drawn outwardly relative to the body 1, thus uncovering the vents 4 and the mouth 5, and placing the instrument in condition to be sounded in the customary manner. By providing the mouthpiece with some means for engaging the teeth of the person using the instrument, as for instance by providing a flange 13 adjacent the outer edge of the mouthpiece, the movement of the valves to open position may be conveniently effected by drawing the body outwardly of the mouthpiece after the latter has been gripped by the teeth, thus rendering the operations of placing the instrument in the mouth of the person and sounding the instrument practically simultaneous. The slot and pin connection between the body 1 and the sleeve 6 may be utilized to limit the outward movement of the mouthpiece relative to the body so as to prevent complete removal of the mouthpiece from the body, and so as to determine the position of the mouth piece on the body, when the vents and mouth of the whistle are open.

In the form illustrated in Figs. 5, 6 and 7, the mouthpiece is one with the sleeve as in the form above referred to. In this instance, however, the sleeve 14 extends farther down on the body 15 and is provided with openings or vents 16 which register with the vent openings 17 in the body 14 at that position of the sleeve relative to the body when the instrument is in condition to be sounded. In this form portions of the sleeve below the openings 16 serve as valves to cover the openings 17 as will be understood. Also in this form the stem 18 of the mouth protecting valve 19 is of such length as to position the latter valve outside of the whistle casing when the mouth of the whistle is open. As illustrated, the stem 18 is of substantial cylindrical structure surmounted by the valve 19 which latter is shouldered and is of a size to fit nicely within the mouth opening in the mouthpiece, the mouth opening being interiorly shouldered to fit the inner face of the valve 19. If desired, and as illustrated, the sleeve 14 may be continued longitudinally of the body 15 so as to completely incase the body when the instrument is closed with the valves covered. Under such conditions the bottom 20 of the whistle body will be flush with the lower edge of the sleeve 14 and the whistle may be conveniently placed in operative condition by applying pressure to said bottom while holding the sleeve. To limit the opening movement between the body and the sleeve, a recess 21 in the body may be engaged by projections 22 punched in the metal of the sleeve. When the whistle is cylindrical, this device prevents rotation of the sleeve on the body as do the pin and slot in the other form. As a convenient way of fastening the valve 19 to the

body, the stem 18 may pass through the plate 3, and its lower portion forked, straddling the partition 2, and fixed thereto.

Thus by the above described construction 5 are accomplished, among others, the objects hereinbefore referred to, and there is produced a strong, compact whistle of simple construction, which will give the characteristic signal of the police, which will always 10 be ready for immediate operation, and which nevertheless, when not in operation, is effectively protected as hereinbefore mentioned.

As many changes could be made in the 15 above construction and many apparently widely different embodiments of this invention could be made without departing from the scope thereof, it is intended that all matter contained in the above description or 20 shown in the accompanying drawings shall be interpreted as illustrative and not in a limiting sense.

It is also to be understood that the language used in the following claims is intended 25 to cover all of the generic and specific features of the invention herein described, and all statements of the scope of the invention which as a matter of language might be said to fall therebetween.

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

1. A whistle comprising, in combination, a 35 hollow body portion having a vent opening in its side wall, a valve slidably mounted on the body portion to cover and uncover said vent opening, a mouth piece movable with said valve and having a mouth opening, an air director fixed relative to said vent opening, 40 and a valve adapted to open and close said mouth opening by movement of said mouth piece, said last mentioned valve being fixed to said body portion and disposed outside the whistle when the mouth opening is open.

45 2. A whistle including, in combination, a hollow body portion having a partition dividing the interior thereof into unequal compartments, a vent opening in each compartment and an air director fixed relatively 50 thereto, a mouth piece movably mounted on said body portion and having a mouth open-

ing therein, and means for closing said vent openings and said mouth piece opening operated by relative movement of said mouth piece and said body portion.

3. A whistle including, in combination, a 55 hollow body portion having a partition dividing the interior thereof into compartments, a vent opening in each compartment and an air director fixed relatively thereto, 60 a mouth piece movably mounted on said body portion and having an opening therein, a closure for said vent opening operatively associated with said mouth piece, and a valve 65 mounted on said body portion and movable to close said mouth piece opening upon relative movement of said mouth piece and said body portion.

4. A whistle including, in combination, a 70 hollow body portion having a partition dividing the interior thereof into compartments, a vent opening in each compartment and an air director secured to said partition in fixed relation to said vent opening, a 75 mouth piece movably mounted on said body portion and having an opening therein, a closure for said vent opening operatively associated with said mouth piece, and a valve mounted on said body portion and 80 movable to close said mouth piece opening upon relative movement of said mouth piece and said body portion.

5. A whistle including, in combination, a 85 hollow body portion having a partition dividing the interior thereof into compartments, a vent opening in each compartment and an air director secured to said partition, a mouth piece movably mounted on said body 90 portion and having an opening therein, a closure for said vent opening operatively associated with said mouth piece, and a valve mounted on said body portion and movable to close said mouth piece opening upon relative movement of said mouth piece and said 95 body portion.

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

HAROLD J. CARMODY.

Witnesses:

J. THOMSON,
C. J. KULBERG.

It is hereby certified that in Letters Patent No. 1,397,263, granted November 15, 1921, upon the application of Harold J. Carmody, of Brooklyn Manor, New York, for an improvement in "Whistles," errors appear in the printed specification requiring correction as follows: Page 1, line 91, strike out the word "that" and insert the words *as to direct*, and line 92 strike out the words "may pass"; and that the said Letters Patent should be read with these corrections therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 17th day of January, A. D., 1922.

[SEAL.]

KARL FENNING,

Acting Commissioner of Patents.