J. J. O'REILLY.

WHISTLE.

APPLICATION FILED JULY 11, 1913.

1,094,006. Patented Apr. 21, 1914.

Fig. 1.

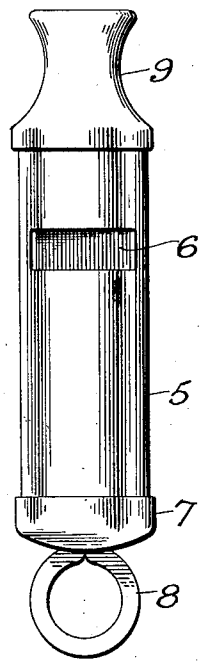


Fig. 2.

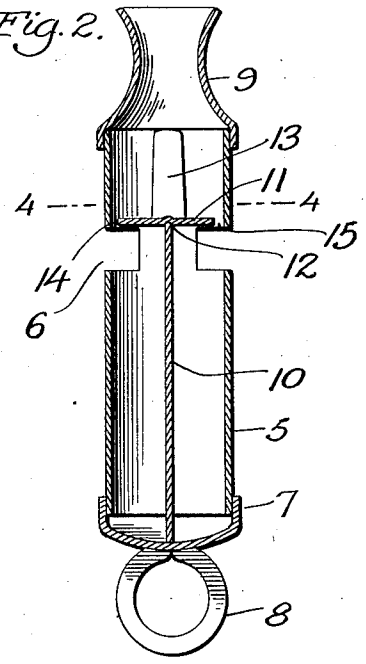


Fig. 3.

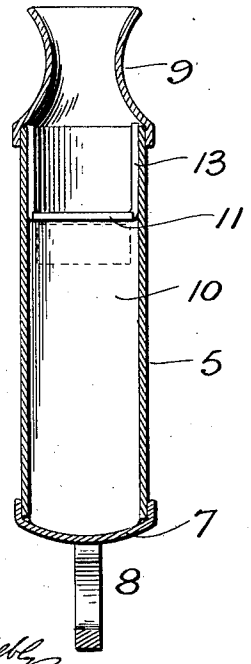
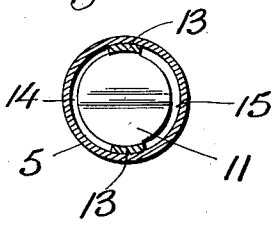


Fig. 4.



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WHISTLE.

1,094,006. Specification of Letters Patent. **Patented Apr. 21, 1914.**

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To all whom it may concern:

Be it known that I, JOSEPH J. O'REILLY, a citizen of the United States, and resident of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Whistles, of which the following is a specification.

This invention relates to whistles and more especially to that class where the blast or call comprises duplicate notes and the object of the invention is to so arrange and construct the details that they easily produce the multiple note signal and provide a whistle of substantial construction at a minimum cost, as will be more fully described in the following specification set forth in the claims and illustrated in the accompanying drawings wherein:

Figure 1 is an elevation of the whistle. Fig. 2 is a vertical longitudinal sectional view. Fig. 3 is a similar view but at a right angle to Fig. 2. Fig. 4 is a cross sectional view on the line 4—4 of Fig. 2.

Whistles of this class, as heretofore made, have failed to provide simple means for producing duplicate tones and for assembling the parts of the whistle, the latter failure being because the important mechanism is confined within a cylinder where it must be put together and soldered in place.

In this invention a cylinder 5 is cut to the desired length and openings 6 provided on opposite sides of the tube for the exit of the air blast. The lower end is closed by means of the dished bottom 7 having a ring 8, while the upper end has a mouth piece 9 so shaped as to conveniently fit within the lips of the operator. The inside of the whistle is divided into two compartments by means of a partition 10 below the upper side of the openings 6, the partition extending diametrically from one side of the cylinder to the other, and into the dished bottom, completely filling the sides and separating the two compartments.

In the top of the cylinder is placed a disk 11 having a groove 12 into which the upper end of the partition rests and at two sides of the disk are ears or extensions 13, to fit against the upper interior walls of the cylinder beneath the mouthpiece, and be soldered there if found desirable.

As will be seen more clearly in Fig. 4, the disk at the sides from which the ears extend is the same diameter as the cylinder but is of less diameter on one side to provide an orifice 14 for the passage of air to the compartment below, and out of the opening 6 on that side. The radial dimension of the other side of the disk is less than the first side, so as to provide a larger orifice 15 for the entrance of air to its compartment below and out of the opening of that side. The volumes of air thus delivered into the compartments and which pass out of the openings 6 are different in size and consequently form two different notes to combine as one call or signal.

The method of assembling the parts is simple and cheap and consists of securing the lower end 7 in place and soldering it to the cylinder after which the partition 10 is put in place and held firmly by the dished bottom and the sides of the cylinder and to more effectually secure same the disk 11 is inserted in the cylinder so that the upper end of the partition enters the groove in the lower face of the same. The ears 13 may be so sprung outward as to bear against the sides of the cylinder, after which the mouthpiece 9 is put in place and bears against the upper ends of the ears. The mouthpiece is soldered in place and, while no further work may be necessary, the partition may be soldered to the disk and the ears to the interior of the cylinder but such additional work may not be actually required. The whistle may then be plated or painted and is ready for use, but it is obvious that the compartments, orifices and outlets may be increased in number so as to provide a call of three or more notes. The parts may be otherwise arranged and modified without departing from the essential features above described or from the scope of the appended claims.

What I claim as new and desire to secure by Letters Patent is:

1. In a whistle, the combination with a cylinder having outlets, of a diaphragm, a mouthpiece and inlet, and a cross disk at the upper end of the diaphragm beneath the inlet and of such diameter as to leave orifices of different sizes above the outlets.

2. In a whistle, the combination with a cylinder having a closed end and outlets, of a mouth piece and inlet, a diaphragm dividing the cylinder, and a horizontal disk on the upper end of the diaphragm and above the outlets and having openings of different sizes at each side of the diaphragm.

3. In a whistle, the combination with a

cylinder having a mouthpiece and an opening at one end and openings at the side, of a horizontal wall below the mouth piece and having orifices of different sizes above the openings, a diaphragm dividing the cylinder below the wall, and a closure with a ring at the lower end of the cylinder.

Signed at New York in the county of New York and State of New York.

JOSEPH J. O'REILLY.

Witnesses:
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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."