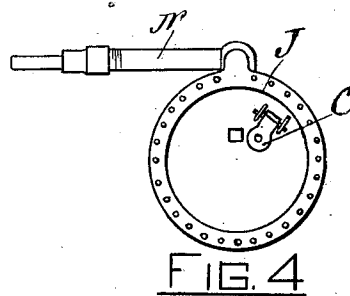
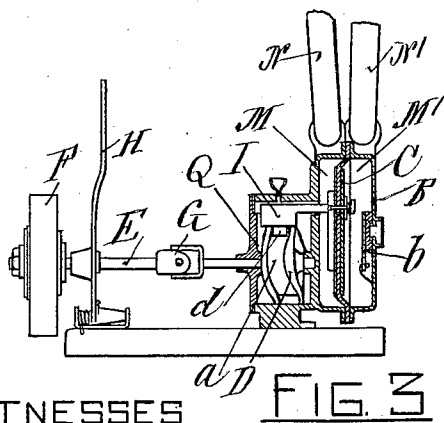
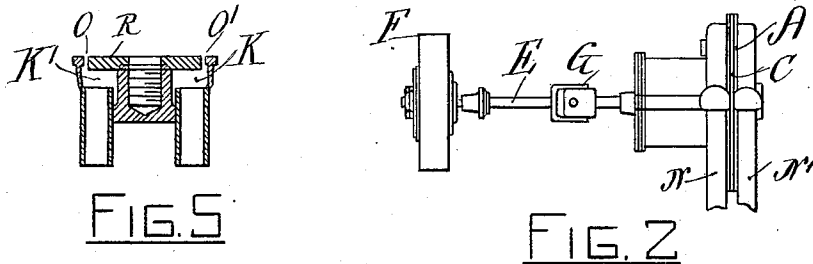
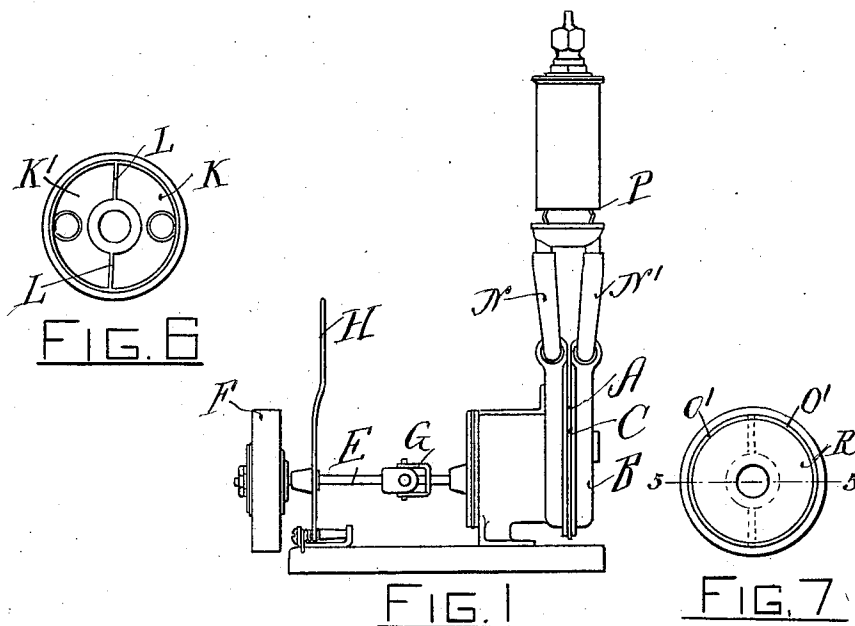


P. J. FANNING.
BLOWER OPERATED WHISTLE.
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1,046,164.

Patented Dec. 3, 1912.



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PETER J. FANNING, OF PROVIDENCE, RHODE ISLAND.

BLOWER-OPERATED WHISTLE.

1,046,164.

Specification of Letters Patent.

Patented Dec. 3, 1912.

Application filed June 19, 1909. Serial No. 503,233.

To all whom it may concern:

Be it known that I, PETER J. FANNING, a citizen of the United States, residing at Providence, in the State of Rhode Island, have invented a new and useful Improvement in Blower-Operated Whistles, of which the following is a specification.

The nature of my invention consists in the employment of a double-acting blower, with a whistle having its jet-chamber divided into separate sections, which are connected with the blower at opposite sides of its operating piston or diaphragm by means of suitable pipes or passages, whereby two different alternately produced sounds will be projected from the whistle.

My invention also consists in the improved construction of the blower employed for operating the whistle.

In the accompanying drawing: Figure 1 represents a side elevation of the blower and whistle. Fig. 2 represents a top view of the blower. Fig. 3 represents a central vertical section. Fig. 4 represents an inside view of the stationary head of the blower. Fig. 5 represents an axial section of the jet-chamber casing of the whistle taken in the line 5, 5, of Fig. 7. Fig. 6 represents a top view of the open side of the casing of the jet-chamber showing the partition, the jet forming disk being removed. Fig. 7 represents a top view of the jet chamber casing showing the semi-circular jet openings formed by means of the partition in the chamber and the covering disk.

In the drawing, A represents the casing of the blower, B the removable head, C the diaphragm, D the operating cam, E the driving shaft, F a frictionally driven pulley, G a universal joint, and H a hand lever for throwing the pulley F into frictionally driven operative engagement. Reciprocating movement is to be imparted to the diaphragm C by means of the slide I, provided with the antifriction roller *d* which is held in the groove *a* of the cam D. The removable head B is provided with the relief valve *b* and a similar relief valve *c* is provided in the fixed head J of the blower.

The jet chamber of the whistle is divided into two parts K and K' by means of the partitions L L, and the covering disk R and

connection is made from said two parts of the jet chamber to the chambers M M', at opposite sides of the diaphragm C by means of the flexible pipes N, N', whereby when the diaphragm C is moved in one direction air will be forced into the sounding chamber P of the whistle from one of the semi-circular openings O, O', and in the other direction through the other semi-circular jet opening.

In the ordinary running of the blower the air required for filling the chambers M, M', of the blower is drawn in through the corresponding jet openings O, O', but in case the blower is running at an excessive rate of speed the relief valves *b*, and *c* are provided. The cam D is held for revolution in the oil chamber Q, whereby the cam when running in oil may be operated with great rapidity without becoming heated. This whistle is well adapted for motor boats where a practically continuous sound is by law required to be emitted for a certain specified length of time. And the employment of the flexible diaphragm in combination with the slide and cam by means of which the blower may be practically operated with great rapidity, constitutes a valuable feature of my improvement.

By my invention whereby two separate and distinct sounds are alternately produced from the same sounding chamber, a great range is given for the penetration of the sound, and the locality of the whistle from which the sound is emitted, can be readily determined.

I claim as my invention:

A blower operated whistle having a jet chamber divided into two jet compartments each provided with a semi-circular jet opening, in combination with an air compressing chamber, a flexible diaphragm dividing the said chamber into two blower compartments, separate pipe connections between the said two blower compartments and the said two jet compartments and the semi-circular jet openings, and means for reciprocating the diaphragm.

PETER J. FANNING.

Witnesses:

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