C. S. McQUEENEY.

BLOWER FOR PNEUMATIC SIGNALS.

APPLICATION FILED MAR. 20, 1911.

1,012,886. Patented Dec. 26, 1911.

Fig. 1.

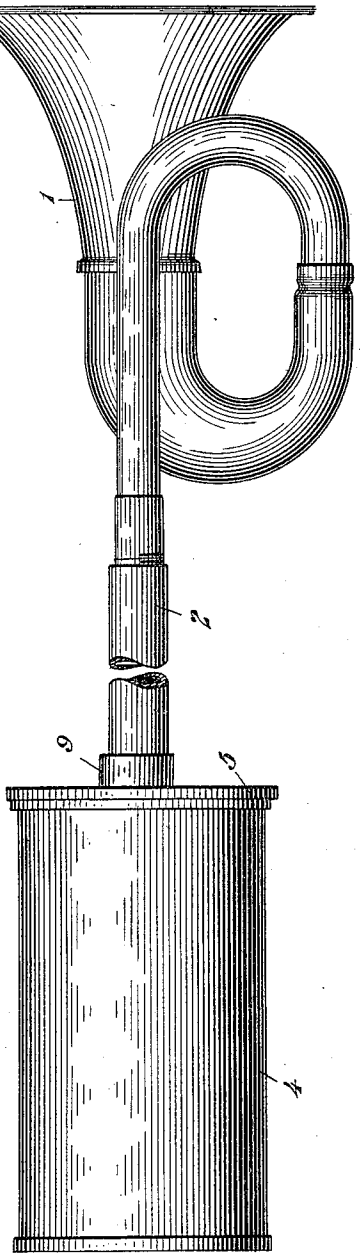


Fig. 3.

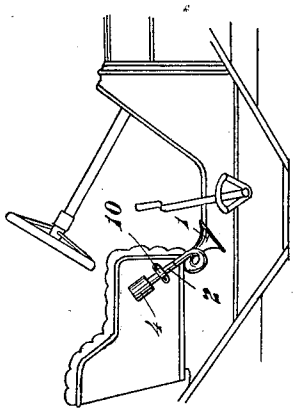
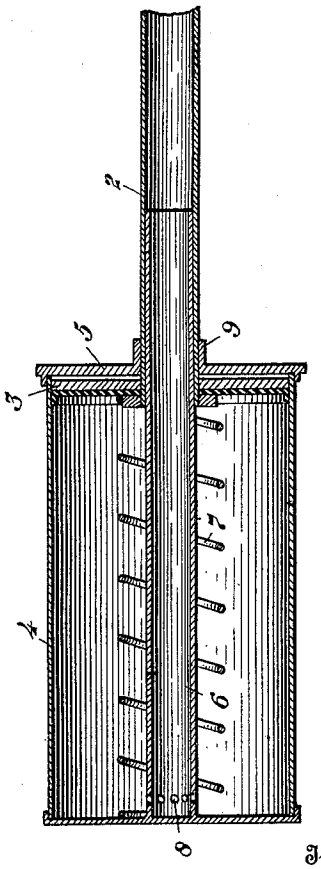


Fig. 2.



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BLOWER FOR PNEUMATIC SIGNALS.

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Application filed March 20, 1911. Serial No. 615,555.

To all whom it may concern:

Be it known that I, CORNELIUS S. McQUEENEY, a citizen of the United States, and resident of Akron, and county of Summit, and State of Ohio, have invented certain new and useful Improvements in Blowers for Pneumatic Signals and other Uses, of which the following is a specification.

My invention relates to improvements in devices for operating whistles or more specifically horns by power of hand or foot motion.

The object of my invention is to provide a simple air compressor adapted for attachment to automobiles and in such a manner that it can be easily reached by the hand or foot.

In the accompanying drawing—Figure 1 is a side elevation. Fig. 2 is a longitudinal section. Fig. 3 is a view showing the device connected to the body of an automobile.

Similar numerals of reference indicate corresponding parts in all the figures of the drawing.

In the accompanying drawing, 1 represents the horn, which may be of the form shown or it may be of any other desired form in as much as the horn within itself forms no particular part of the present invention.

2 represents the relatively fixed air pipe which is connected to the horn 1 in the usual manner. To this pipe 2 is securely attached in any convenient and well known manner the piston 3 around which piston is located the cylinder 4, which cylinder is provided with the cap 5, said cap being slidably mounted upon the pipe 2. To the cylinder 4 is attached the air intake pipe 6, which intake pipe is secured to the opposite end of the cylinder 4 from that to which the cap 5 is attached.

For the purpose of automatically forcing the cylinder endwise and away from the horn 1 the spring 7 is provided, which spring is located around the intake air pipe 6, one end of said spring abutting against the piston 3 and the opposite end abutting against the outer end of the cylinder 4. It will be understood that the cylinder 4 is forced by hand or foot toward the horn 1, the cap 5 will move away from the piston 3, thereby shortening the distance between said piston and the outer end of the cylinder 4, thereby forcing the air contained in the cylinder into the air intake pipe 6, through the apertures 8 formed in the air pipe 6. When pressure is removed from the cylinder 4 it will be automatically moved in the opposite direction, thereby allowing the cylinder to be again filled with air taken in through the intake pipe 6. By fixing the piston 3 to the pipe 2 the cylinder will be prevented from becoming detached from said pipe by reason of the cap 5 coming in contact with the piston 3.

The cap 5 may be provided with the annular flange 9, which flange is loosely fitted upon the pipe 2. The intake pipe 6 and the pipe 2 should be formed of such relative diameters that said intake pipe will snugly fit the outer pipe or more specifically the pipe 2, so that there can be no tilting movement of the cylinder. It will be understood that by forming the intake pipe of such a length that a considerable portion of it will be located in the pipe 2 there can be no possible danger of the tilting of the cylinder 4. Another advantage in providing the intake pipe of considerable length is to prevent any bending of either pipe in case a sudden lateral strain be given.

It will be understood that the air conducting pipe and the intake pipe should be so fitted together that the reciprocating movement of the cylinder will be comparatively easy or in other words there should be but little friction as between the air conducting pipe 2 and the intake pipe 6.

The operation of the device is as follows: When it is desired to sound the whistle or horn the cylinder 4 is moved back and forth upon the pipe 2 with sufficient rapidity to produce short and intermittent blasts of the horn or whistle, the air intake pipe sliding back and forth in the pipe 2.

It will be understood that the cylinder 4 should be moved back and forth in a straight line or in other words that there should be no lateral movement of the cylinder, owing to the fact that any side pressure is liable to bend the intake pipe or the air inlet pipe, thereby preventing the reciprocating movements of the air intake pipe, and in order to prevent this bending or springing of the pipes the air intake pipe is extended some distance beyond the front or forward end of the cylinder and extended into the relatively fixed air pipe, by which arrangement and location the air intake pipe 6 and the relatively fixed air pipe 2

are telescopically connected together for a considerable portion of their lengths, thereby assisting in holding said pipes in true alinement and at the same time permitting more or less lateral pressure upon the cylinder without springing or bending the air pipes.

For the purpose of holding the device as a whole in proper position to be actuated a connecting stirrup 10 should be provided, which may be attached to the body of the automobile in any convenient and well known manner.

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

In a blower for pneumatic signals, the combination of a relatively fixed air conducting pipe, a piston fixed to said relatively fixed air conducting pipe, a cylinder located around said piston, an air-intake pipe fixed to the cylinder and movable with said cylinder, said air-intake pipe extended beyond the cylinder and into the relatively fixed air conducting pipe, said air-intake pipe located in contact with the relatively fixed air pipe and slidably connected to said relatively fixed air conducting pipe, said air-intake pipe provided with apertures located near the fixed end thereof, a cap adapted to close one end of the cylinder and slidably mounted upon the relatively fixed air conducting pipe, and a spring located within the cylinder and around the air-intake pipe, substantially as and for the purpose specified.

In testimony that I claim the above, I have hereunto subscribed my name in the presence of two witnesses.

CORNELIUS S. McQUEENEY.

Witnesses:
JOHN H. SPONSELLER,
SYLVIA BORON.