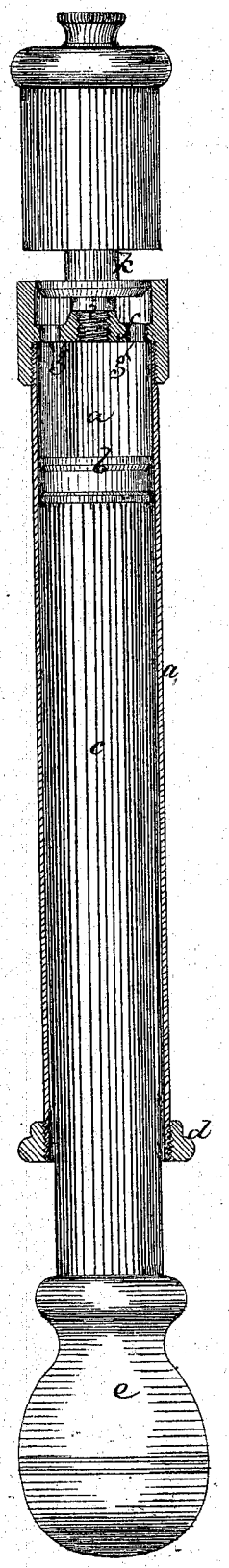
JOHN F. HASKINS.

Improvement in Alarm-Batons.

No. 115,464. Patented May 30, 1871.



Witnesses.
Mc. W. Fothingham.
C. H. Latimer,

John F. Haskins,
By his Attys.
Crosby & Gould.

UNITED STATES PATENT OFFICE.

JOHN F. HASKINS, OF FITCHBURG, MASSACHUSETTS.

IMPROVEMENT IN ALARM-BATONS.

Specification forming part of Letters Patent No. 115,464, dated May 30, 1871.

To all whom it may concern:

Be it known that I, JOHN F. HASKINS, of Fitchburg, in the county of Worcester and State of Massachusetts, have invented an Improved Pneumatic Alarm or Signal; and I do hereby declare that the following, taken in connection with the drawing which accompanies and forms part of this specification, is a description of my invention sufficient to enable those skilled in the art to practice it.

United States Letters Patent No. 110,036, dated December 13, 1870, were granted to me for an improved pneumatic alarm or signal, my invention described in said patent consisting in combining an air-reservoir, an air-pump located within said reservoir, a vibrator or whistle, and means for controlling the passage between the vibrator and the reservoir.

My present invention also relates to the construction of a pneumatic alarm or signal, the object of my invention being to make a more simple apparatus or alarm for hand use, or an instrument which, in connection with the hand-flag of a railway flag-man or the club of a policeman, occupies no additional room, or does not increase the bulk nor materially increase the weight of such implements. To effect this I dispense entirely with the air-stowing reservoir shown in my aforesaid patent, and use for the alarm mechanism only an air-compressing pump (consisting of a tube, a piston, and a piston rod or handle) and a whistle or vibrator. The invention consists in an alarm or signal mechanism composed of an air tube and piston, and on the air inlet or outlet end of the tube a whistle or vibrator, which, by forcibly driving out the air (drawn into the tube by the retreat of the piston) by forcing the piston forward, emits or produces a sharp and loud sound.

The drawing represents in section a pneumatic alarm embodying the invention.

a denotes a metal tube or pump-cylinder; *b*, a piston fitting and playing in said tube; *c*, a piston-rod, preferably made of wood, and fitting but sliding easily through the cap *d*; *e*, a handle on the end of said rod. Near the lower and air-inlet end of the tube is a cross-piece, or partition, or seat, *f*, having perforations *g* and a nut-threaded central hole, *h*, into which is fastened the screw-threaded end of a spindle, *i*, of a whistle, *k*, preferably formed like, or not unlike, a common steam-whistle.

As the piston is drawn back air passes freely into the cylinder around the edge of the disk or flange *l*, and as the piston is driven forward the air is forced out through the same opening and against the edge of cup *m*, producing the alarm-whistle.

It will thus be seen that no air has to be stored; that the current of air urged by the piston, and not the mere elasticity of compressed air, is used to produce the alarm; that no valvular arrangement is required either in the tube or in the piston; that no cock is necessary; and that no mechanism is required other than the plain whistle, (the parts of which, in operating, have no relative movements,) the pump-cylinder, and the piston. Hence the alarm is not only simple, inexpensive, and free from liability to get out of repair, but the whole construction is contained within a diameter not materially larger than the pump-cylinder, or within a diameter not exceeding that of the policeman's club or the flag-man's staff.

The alarm is best operated by short, quick reciprocations of the piston, and by a system of prearranged signals (the meaning of respective signals depending upon the number of whistles given, or upon number and intervals) the instrument can be made very useful upon railways, by watchmen and night police, and and in other positions where it is often necessary or desirable to give alarms.

I claim—

1. A pneumatic alarm or signal, consisting of a pump-cylinder, a piston, and a whistle or sonorific vibrator, constructed, combined, and relatively arranged, substantially as shown and described.

2. The air-pump, having an orifice through which the air is both admitted and ejected without any valve or valvular mechanism, and having a sonorific vibrator in combination with such pump.

JOHN F. HASKINS.

Witnesses:

F. L. HILLS,

FRANCIS GOULD.