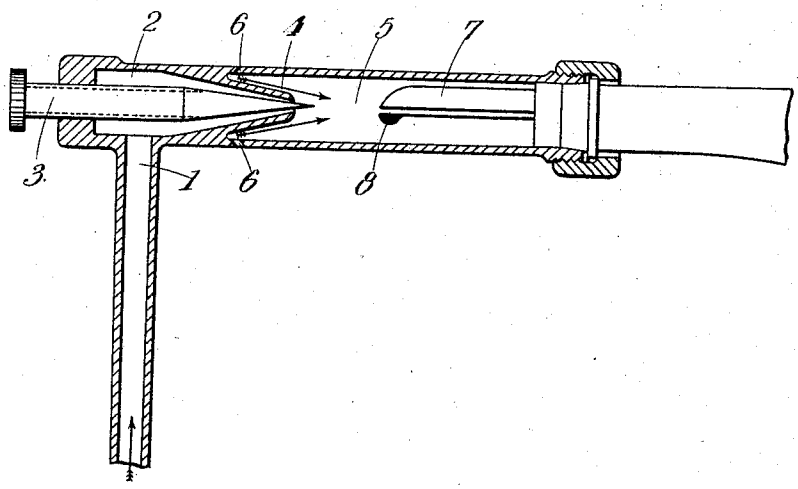
June 2, 1925.

T. KOLLINEK

1,540,023

AIR OPERATED SOUNDING HORN

Filed March 11, 1925



Inventor
Theodor Kollinek
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Patented June 2, 1925. 1,540,023

UNITED STATES PATENT OFFICE.

THEODOR KOLLINEK, OF BERLIN, GERMANY, ASSIGNOR TO HANDELMAATSCHAPPIJ H. ALBERT DE BARY & CO., OF AMSTERDAM, NETHERLANDS.

AIR-OPERATED SOUNDING HORN.

Application filed March 11, 1925. Serial No. 14,610.

To all whom it may concern:

Be it known that I, THEODOR KOLLINEK, a citizen of the German Republic, residing at Motzstrasse 19, Berlin W., Germany, have invented certain new and useful Improvements in or Relating to Air-Operated Sounding Horns, of which the following is a specification.

This invention relates to air operated sounding horns of the kind in which a resilient tongue opposed to the outlet nozzle of the horn is vibrated by an air current.

In general such tongue horns are only adapted to work at a certain air-pressure, and if this pressure be exceeded the tongue remains pressed against its seat on the outlet nozzle and the horn becomes silent. The purpose of this invention is to enable horns of the said kind to work at variable service pressures, and for this purpose an expansion chamber is provided with perforations communicating between the interior of said chamber and the atmosphere, the said perforations acting either as auxiliary air inlets or air pressure relief outlets, as may be required.

The accompanying drawing illustrates an exemplification of this invention.

Through an air pressure pipe 1 air is delivered at a high speed into a valve chamber 2 and thence in a thin jet into the tongue chamber 5 through the opening in the nozzle 4, which opening is controlled by a needle valve 3 adjustable by means of a screw thread thereon working in a screw threaded portion of the casing of the valve chamber 2. By the injector action thus set up, air from the atmosphere is induced to flow through the perforations 6 into the tongue chamber, and therefore a sufficiently large stream of partially expanded air is caused to flow through the outlet nozzle 7 of the horn, which is thus sounded in the known manner. In case the air current becomes so severe as to hold the tongue 8 tightly against the nozzle 7, the said injector action immediately ceases, because the air arriving from the pipe 1 escapes into the atmosphere through the perforations 6. The pressure in the chamber 5 is now reduced, the tongue 8 springs away from the nozzle 7, and the horn again sounds with continued vibration of the tongue 8.

What I claim and desire to secure by Letters Patent of the United States is:—

In a horn of the kind set forth, a high pressure air feed pipe, a tongue chamber, an adjustable valve adapted to control the delivery of air from said pipe into said chamber at a high speed but in a thin jet, said chamber having perforations to admit atmospheric air to said chamber to provide a sufficiently large current of partially expanded air past the tongue in said chamber, said perforations being also adapted to serve as relief outlets in case of excessive pressure occurring in said chamber.

THEODOR KOLLINEK.