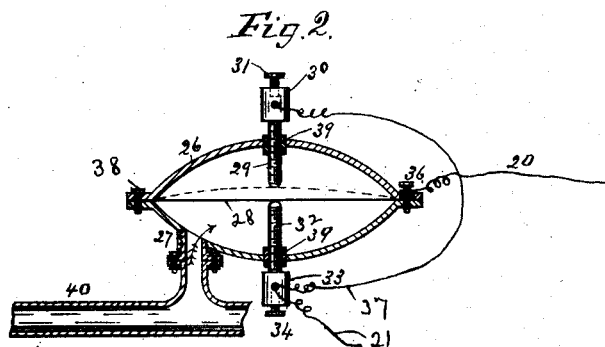
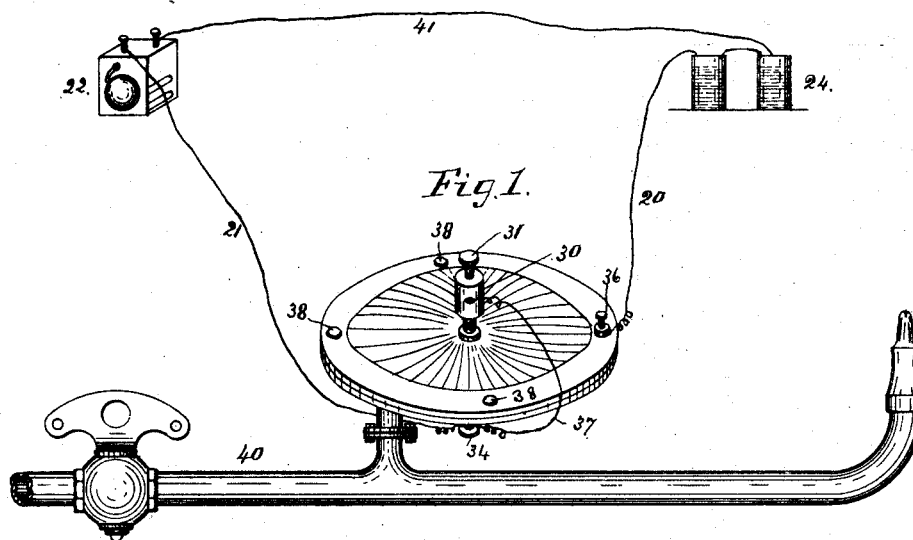


(No Model.)

A. MIESSE.
ALARM FOR GAS PIPES.

No. 423,385.

Patented Mar. 11, 1890.



Witnesses

E. J. Beer

A. H. Semmes

Inventor

Americus Miesse.

By his Attorney

C. D. Campbell.

UNITED STATES PATENT OFFICE.

AMERICUS MIESSE, OF LIMA, OHIO, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, OF ONE-HALF TO JOHN HUBBARD, OF SAME PLACE.

ALARM FOR GAS-PIPES.

SPECIFICATION forming part of Letters Patent No. 423,385, dated March 11, 1890.

Application filed May 26, 1888. Serial No. 275,123. (No model.)

To all whom it may concern:

Be it known that I, AMERICUS MIESSE, a citizen of the United States, and a resident of Lima, in the county of Allen and State of Ohio, have invented a new and useful Alarm Device for Gas-Pipes, of which the following is a specification.

My invention relates to an improved device for attachment to gas and other pipes, but principally for natural-gas pipes, where the flow is apt to be irregular, to give notice of an undue amount of pressure or a stoppage of the flow.

Figure 1 is a perspective view with the device attached to a gas-pipe; Fig. 2, a sectional view.

The description of the device as shown in Figs. 1 and 2 is as follows: Two cup-shaped brass plates 26 27, having a thin flexible plate or diaphragm between them, are bound together in their flanged edges by screw 38. Through the top and bottom plates are two screws 29 and 32, surrounded by non-conducting packing or collars 39, on which are mounted the regulating-nuts 30 and 33. In the latter are attached the connecting-wire 37 and the wire 21, running to the alarm-bell 22. In one edge of the flange is a binding-post 36, (which connects with diaphragm 28,) from which the wire 20 passes to the battery. In the ends of the nuts 30 and 33 are two screws 31 and 34, that bind the wires 21 and 37 fast in the holes therein. The lower cup is screwed fast to the gas-pipe in any convenient manner, so that the gas in passing to the burner will enter the cup through the pipe 40. The screw 32 is adjusted so that the diaphragm 28 will rest on the point of the screw when there is no pressure from the gas beneath. When the gas is turned on, the pressure bulges the diaphragm up in the center, off the screw, as shown in dotted lines, Fig. 2. The point of the upper screw 29 is set at any distance above the diaphragm desired—say, one sixty-fourth, one thirty-second, or one-sixteenth, of an inch—far enough above the plate so that any ordinary pressure will not bring the plate in con-

tact with it; but when it is desired to use the gas the bell is thrown in connection with the battery and detector, the gas is turned on, and the pressure bulges the plate up, so that it does not touch the screw 32, and the connection between the posts 36 and 32 is broken. The upper screw is set so that its point will not be reached by the diaphragm with an ordinary pressure, but should a sudden fluctuation occur, as is often the case with natural gas, the diaphragm will touch the screw 29 and form connection between parts 30 and 36 and complete the circuit through wires 20 and 21, between the bell and battery, and ring the bell. These fluctuations in natural gas are often dangerous, the pressure becoming so great as to overheat and melt stones and set fire to houses, cause explosions, &c. Should the gas cease to flow, the diaphragm will drop until it rests upon the bottom screw, when the bell will be rung again. Explosions often occur by gas stopping and then resuming its flow, filling the room unknown to any one, when the introduction of a light will cause an explosion. Families are often smothered by the same accident. Around the screws 29, 32, and 36 are non-conducting packings or collars, which serve to insulate the binding-screws.

What I claim is—

In a gas-alarm, the cup 26, provided with an insulated contact-screw, the cup 27, also provided with an insulated contact-screw, a diaphragm located within the gas-chamber formed by the said cups and between the contact-screws, but normally out of contact therewith, the galvanic battery, the alarm-bell, and the electrical connections arranged to give an alarm, both when the gas is above and below pressure and when it ceases to flow, substantially as shown and described.

Lima, Ohio, January 13, 1888.

AMERICUS MIESSE.

Attest:

H. HAUTHORN,
J. W. HALFHILL.