

No. 882,055.

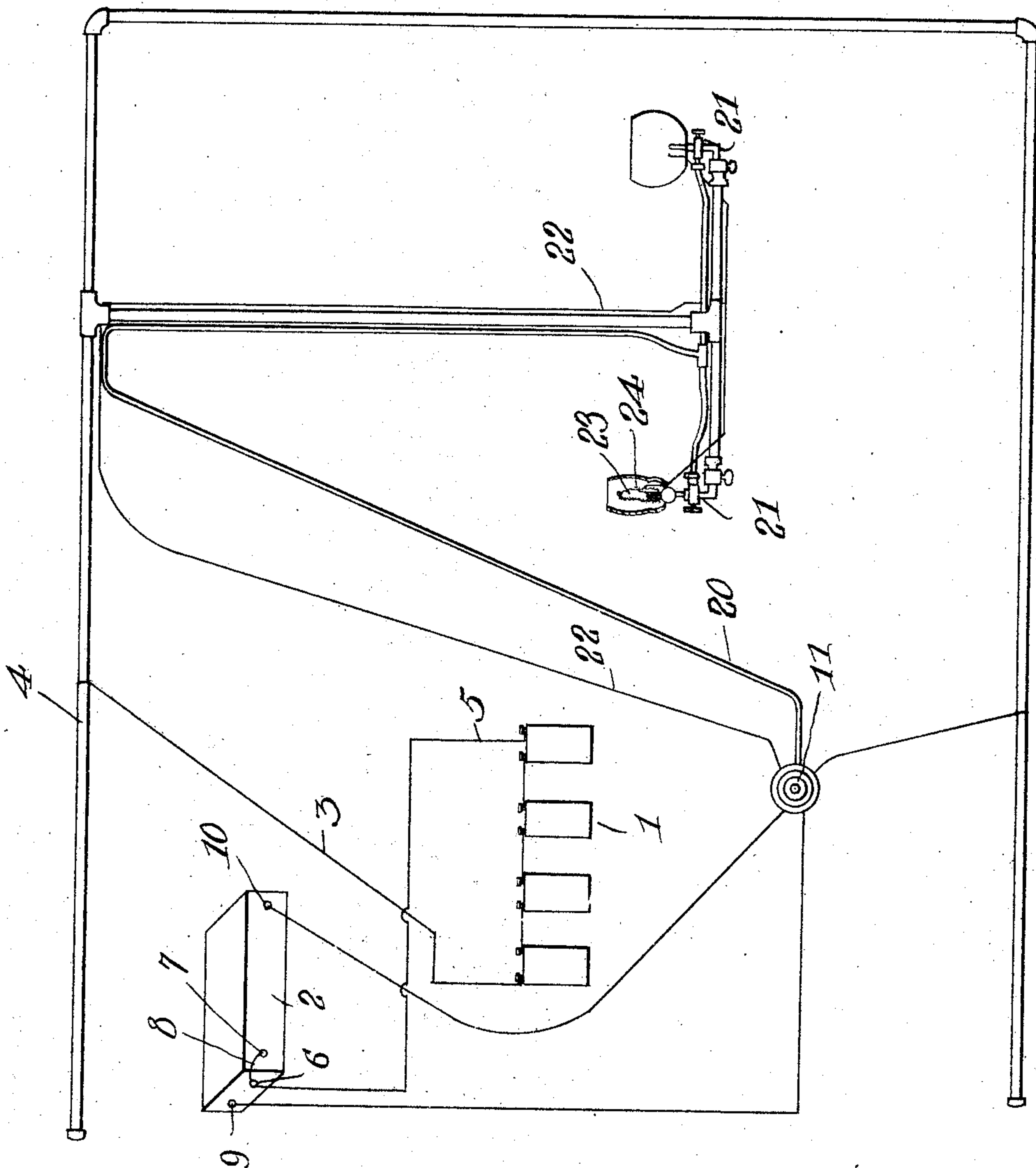
PATENTED MAR. 17, 1908.

W. K. ELLIOTT.

GAS LIGHTING DEVICE.

APPLICATION FILED AUG. 16, 1907.

2 SHEETS—SHEET 1.



Witnesses

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Inventor

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by

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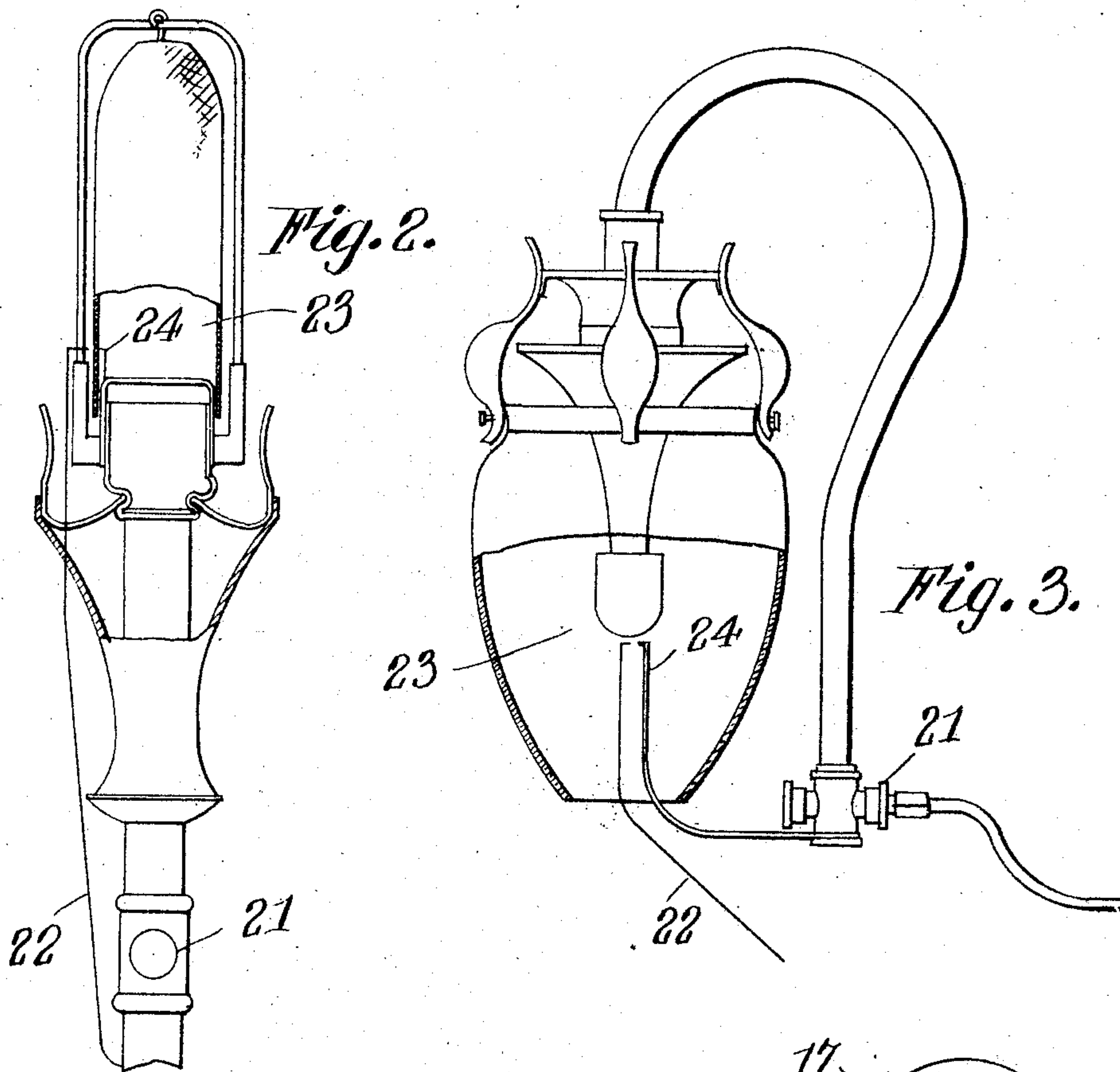


Fig. 4.

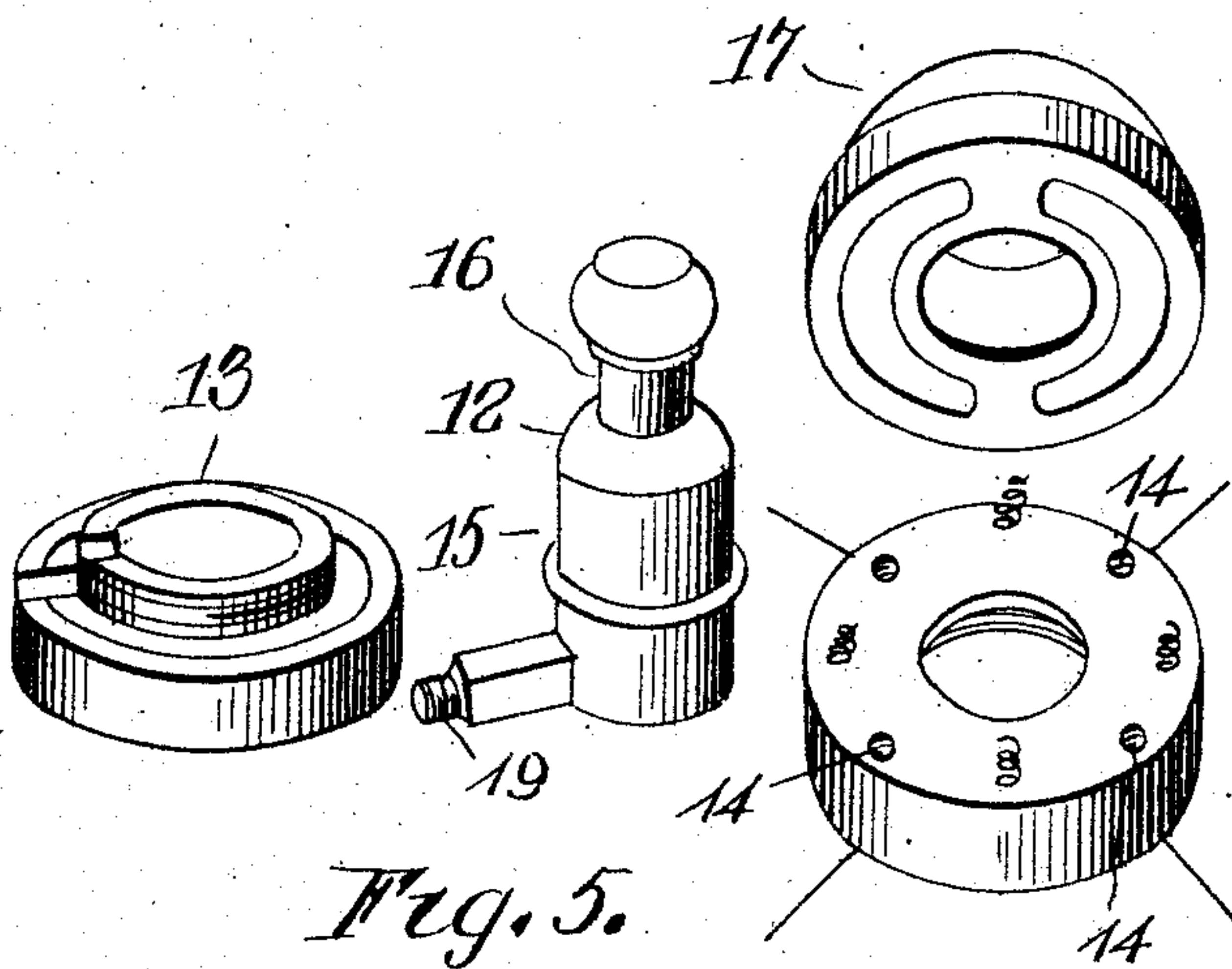
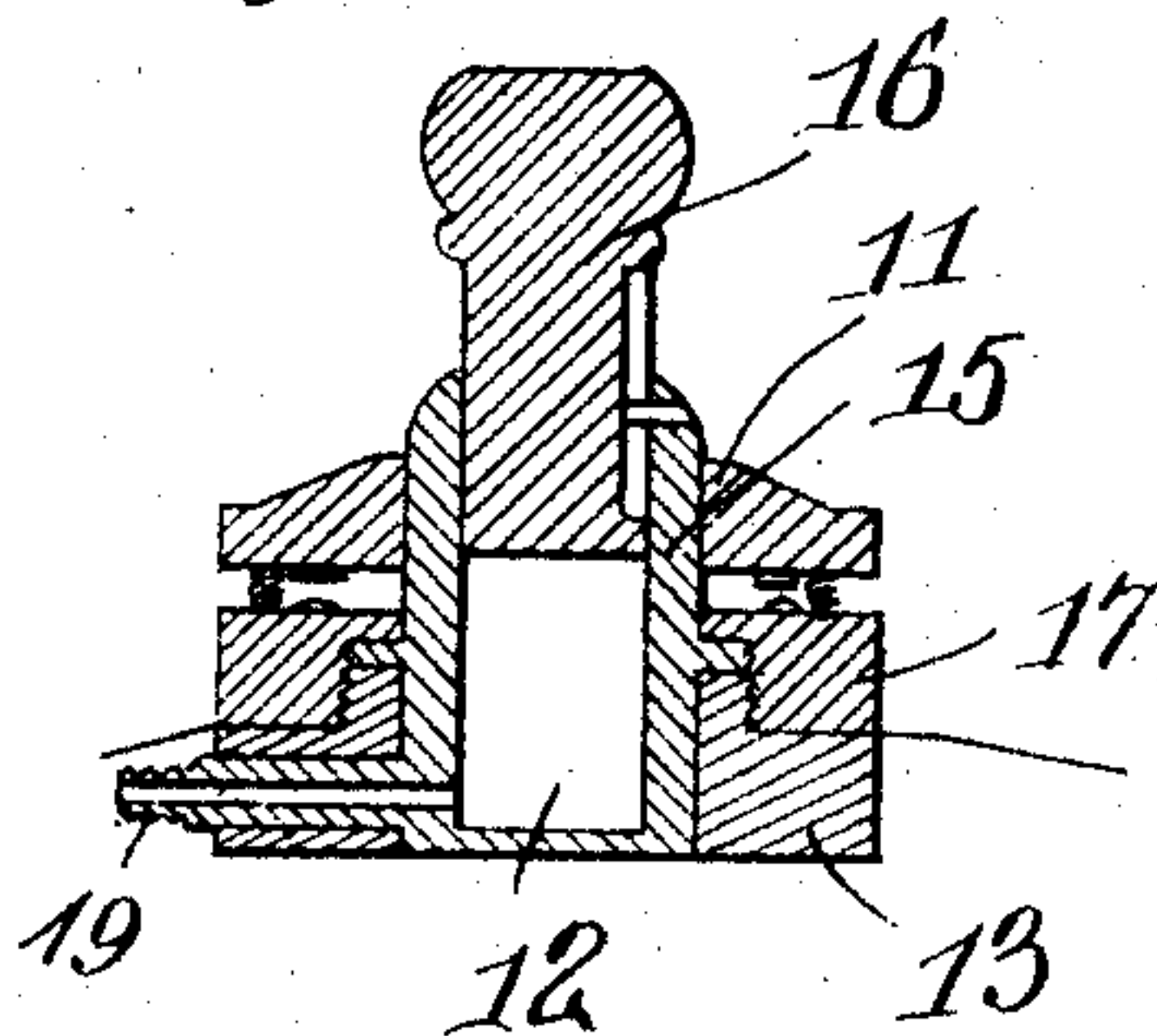


Fig. 5.

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UNITED STATES PATENT OFFICE.

WILLIAM K. ELLIOTT, OF PAYSON, ILLINOIS.

GAS-LIGHTING DEVICE.

No. 882,055.

Specification of Letters Patent.

Patented March 17, 1908.

Application filed August 16, 1907. Serial No. 388,879.

To all whom it may concern:

Be it known that I, WILLIAM K. ELLIOTT, a citizen of the United States, residing at Payson, in the county of Adams and State of Illinois, have invented certain new and useful Improvements in Gas-Lighting Devices; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to an electro-pneumatic gas lighter for lighting gas lamps by means of an electric jump-spark to be used in connection with a pneumatic device for turning on the gas.

The object of the invention is to provide a simple gas lighter by means of which a pneumatic device is used for turning on the gas and the electric jump-spark for lighting it.

Figure 1 represents a perspective view of this improved apparatus complete, showing its application to two forms of burners; Fig. 2 represents a side elevation partly in section of one form of burner, showing this improved lighter applied; Fig. 3 represents a similar view showing the lighter attached to an inverted burner; Fig. 4 shows an enlarged view of the double contact push button; Fig. 5 represents perspective views of the parts of a pneumatic pump.

In the embodiment illustrated, a series of dry batteries 1 are shown connected to a vibrator induction coil 2 for producing a spark such as is used in automobile gas engines.

The dry cells 1 are shown connected in a series, one pole 3 being attached to the gas pipe 4, as the ground, and the other pole 5 being connected to the pole 6 of the induction coil. The poles 6 and 7 of the coil are connected by a wire 8 and the two other poles 9 and 10 of the coil are wires to either binding post of a double contact push-button 11, the center of which constitutes the piston of the pneumatic pump. Both the primary and secondary currents of the coil are connected simultaneously by means of this double contact push-button, after the pneumatic center 12 of the button has been operated to turn on the gas at the fixture, the fixtures and piping in every instance acting as the ground. The center of this double contact push-button is shown in the form of a pump 12, such as is used in pneumatic gas lighters, and preferably consists of a base 13 adapted to

be secured to a wall or other support by screws, or other suitable means, a pump shell 15, a piston 16, and a cover member 17. The piston shell has a screw-threaded nipple 19, which projects through the base 13 and to which an air-tight line of flexible brass tubing 20 is connected. This tubing, which is preferably of about one-sixteenth of an inch in diameter connects the pump to the cock or valve of the gas burner to be operated and through this line of tubing the pull or pressure on the piston 16 is transmitted pneumatically to the gas cock which is shown in the form of a piston valve 21. Arranged around this pump is the annular or collar-like double-acting contact button 11 by means of which two circuits are closed to make the jump-spark. The wire 22 runs to the mantle 23, where the electric current jumps across through the mantle to a little extension 24 on the burner, which becomes the ground, as shown at the left of Fig. 1. At the right of Fig. 1 is shown a lamp of ordinary construction lighted by the spark, which is caused by the current jumping from wire 22 to gas burner nipple 25. This insulated wire 22 is branched and conducted from the inside of the gas fixture to this point near the burner tip, while the other branch leads to burner at the left. The principle is the same for all lamps, but different wiring must be used to suit the various styles.

By the use of this improved apparatus a gas burner may be lighted and extinguished from a distance, by first pulling on the piston 16 of the pump 12 to turn on the gas, and then pressing down the collar 17 against the tension of the springs 17² which serve to normally hold the contact points as 14 and 14' separated. Said pressure closes the circuit and forms the spark at the burner. The collar 17, composed of insulating material, moves on pivot screws 17³, which hold it in place ready to operate the currents. The other member 17' of the push button 11 is also composed of insulating material and the two parts 17 and 17' are preferably attached together before connection with the base member 13. The gas is extinguished by simply pressing the pneumatic device.

I claim as my invention:—

1. A gas lighter comprising means operable from a distance to turn on the gas, an electric jump spark device arranged adjacent the burner to ignite the gas, and a push button for operating said jump spark device ar-

ranged adjacent to and encircling the means for turning on the gas.

2. A combined gas turning-on and lighting device, comprising a pump shell having
5 means for connection with a valve to be operated, a piston operable in said shell, a double acting annular contact button arranged around said shell and composed of two members carrying coacting contacts and having
10 springs arranged between them to hold said contacts normally apart, an electric jump-

spark device arranged adjacent the burner, and wires connecting said device with said contacts.

In testimony whereof I have hereunto set 15 my hand in presence of two subscribing witnesses.

WILLIAM K. ELLIOTT.

Witnesses:

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GEORGE E. THOMPSON.