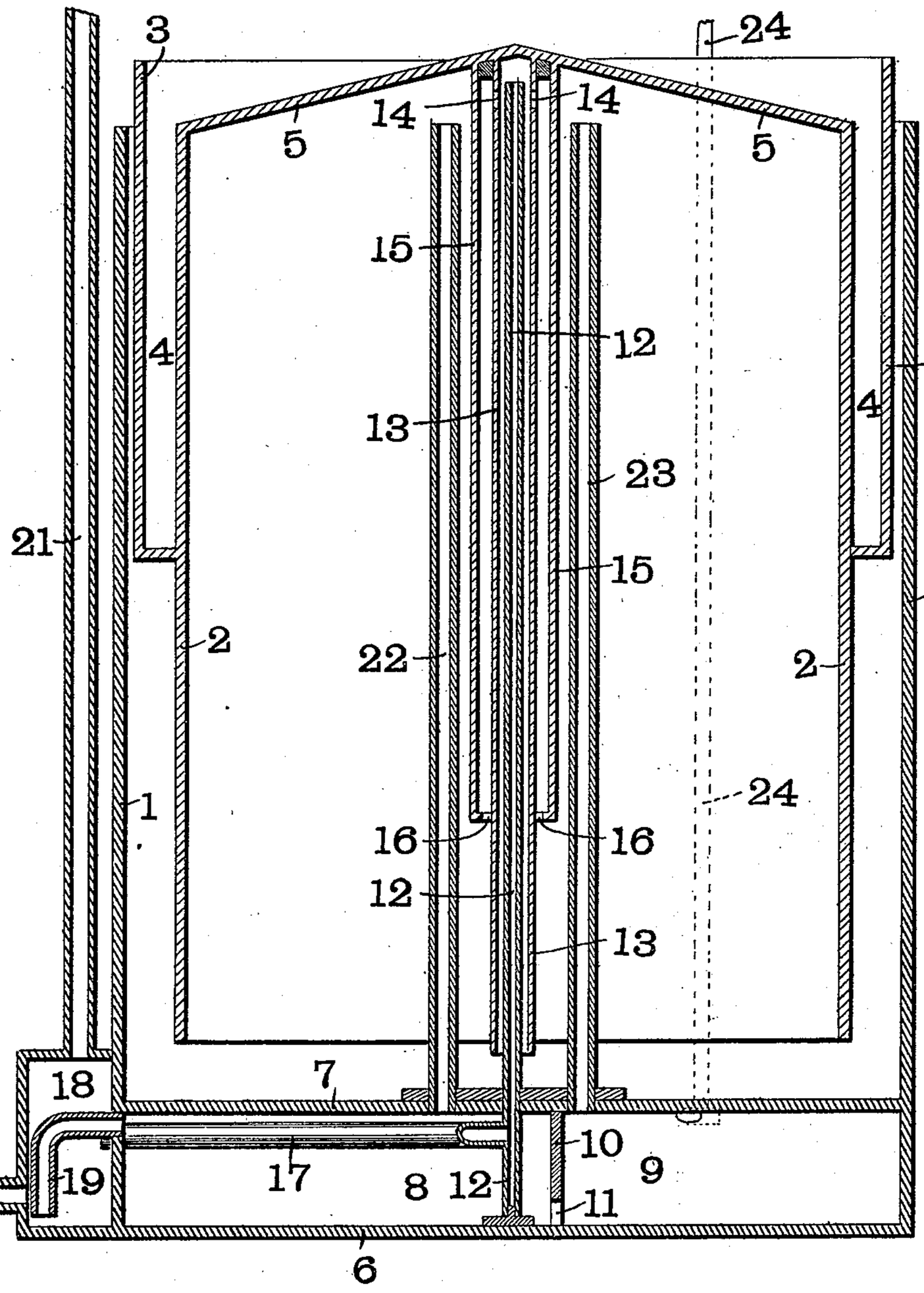
No. 722,834. PATENTED MAR. 17, 1903.

J. H. GREEN.

GAS HOLDER.

APPLICATION FILED MAR. 5, 1900.

NO MODEL.



Witnesses

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UNITED STATES PATENT OFFICE.

JOHN H. GREEN, OF ST. LOUIS, MISSOURI, ASSIGNOR, BY MESNE ASSIGNMENTS, TO NATIONAL LIGHT, HEAT AND POWER COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION OF MISSOURI.

GAS-HOLDER.

SPECIFICATION forming part of Letters Patent No. 722,834, dated March 17, 1903.

Application filed March 5, 1900. Serial No. 7,259. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. GREEN, a citizen of the United States, residing at the city of St. Louis, in the State of Missouri, have invented a certain new and useful Gasometer, of which the following is such a full, clear, and exact description as will enable any one skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawing, forming part of this specification.

The object of my invention is to so construct a gasometer that an outlet will be provided for the gas to prevent leakage into the room containing the gasometer either by an abnormal rise in the gasometer or by having the bell of the gasometer held down against the pressure of the gas.

My invention consists in certain novel features and details of construction, all of which are described in the following specification and pointed out in the claims affixed hereto.

The accompanying drawing, which illustrates one form of gasometer made in accordance with my invention, is a vertical central section.

1 represents the body of the gasometer, which is provided with a bell 2. The bell 2 is of the usual construction, except that it is provided at its upper end with a sleeve 3, thus leaving an annular space 4 for the reception of water or other suitable liquid to vary the height of the bell, and consequently the pressure of the gas. The bell 2 is provided with a top 5.

The gasometer 1 is provided with a bottom 6 and a false bottom 7, and the space between the bottom 6 and false bottom 7 is divided into two chambers 8 and 9 by means of a partition 10. The partition 10 is provided at its lower edge with one or more openings 11 to allow communication of the water in the chambers 8 and 9. Projecting up through the false bottom 7 to near the top of the gasometer 1 is a pipe 12. The pipe 12 is surrounded by a pipe 13, secured to the top 5 of the bell 2. The pipe 13 is provided near its upper end with openings 14. Surrounding the pipe 13 is a pipe 15, also secured to the top 5 of the bell 2 and projecting downwardly. The pipe 15 terminates some distance above the lower end of the pipe 13. Formed in the lower end of the pipe 15 are openings 16.

17 is a pipe which connects at one end with the pipe 12 and at the other end with a chamber 18, formed on the side of the gasometer 1.

19 is a bent pipe, one end of which connects with the chamber 8 and the other end of which terminates near the bottom of the chamber 18.

20 is an L-shaped pipe, the lower end of which connects with the chamber 18 and the upper end of which terminates at or near the top of said chamber.

21 is an escape-pipe which extends upwardly from the chamber 18.

22 is a pipe leading from the chamber 8 in the bottom of the gasometer to near the top of the bell, and 23 is a similar pipe leading from the chamber 9 to near the top of the bell.

24 is a service-pipe which leads from the chamber 9 to the point where the gas is to be consumed.

In the operation of my gasometer the space between the body 1 and bell 2 is filled with water in the usual manner. The chambers 8 and 9 are also partially filled with water, so as to leave a space between the water and the false bottom 7, in which the gas collects. From the chamber 8 the gas passes upwardly through the pipe 22 into the bell 2 and thence down through the pipe 23 into the chamber 9 and out through the service-pipe 24. As the pressure of the gasometer increases the bell 2 will be raised. As soon as the pressure decreases the bell will fall. In case too large a quantity of gas is generated and the bell of the gasometer is raised to an abnormal height the pipe 15 will be drawn out of the water. The gas can then pass up through the openings 16 into the pipe 15 and thence through the openings 14 into the pipe 12. From the pipe 13 the gas passes through the pipes 12 and 17 to the chamber 18 and thence up through the escape-pipe 21 to the air. If by any means the bell 2 should be held down and prevented from rising when an abnormal pressure is generated, the gas would pass out through the pipe 19 into the chamber 18 and

thence through the exhaust-pipe 21 into the air.

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

1. In a gas-machine, the combination with a gasometer, of a pipe communicating with the atmosphere and extending to near the top of said gasometer, a second pipe surrounding said first-named pipe and secured to the bell of said gasometer, perforations in said second-named pipe, and a third pipe also secured to the bell of said gasometer and surrounding said second pipe, said third-named pipe extending over only a portion of said second-named pipe.

2. In a gas-machine, the combination with a gasometer having a false bottom, of a pipe adapted to be put in communication with the contents of said gasometer by the abnormal movement of the bell of said gasometer, an auxiliary chamber adapted to contain water and into which said pipe opens, a pipe provided with a downturned end and leading from the space below said false bottom to said auxiliary chamber, a pipe leading from said auxiliary chamber and having an upturned end, and an escape-pipe for said auxiliary chamber.

In testimony whereof I have hereunto set my hand and affixed my seal in the presence of the two subscribing witnesses.

JNO. H. GREEN. [L. S.]

Witnesses:

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JESSIE R. WATKINS.