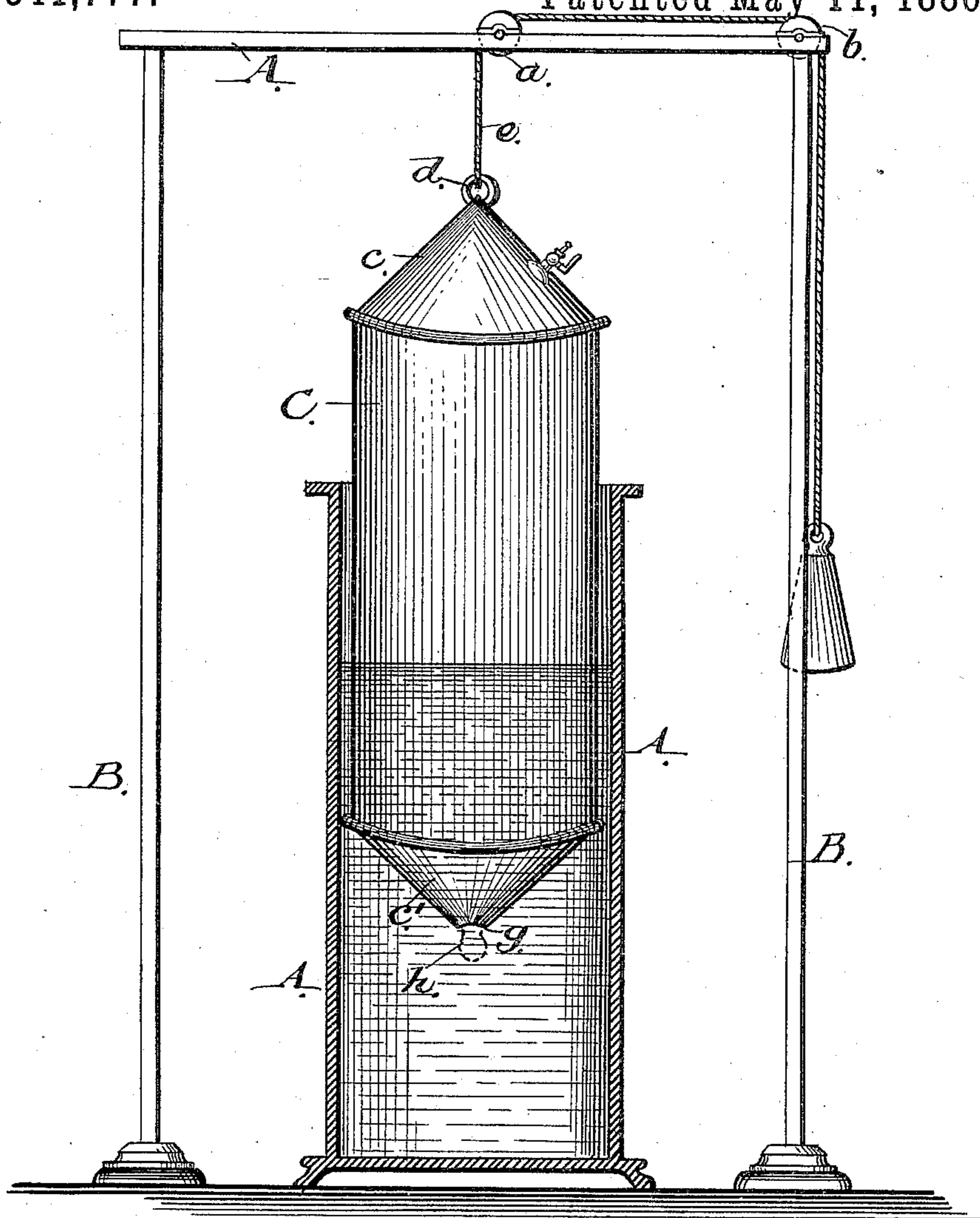


(No Model.)

G. M. STEPHEN.
PORTABLE GAS HOLDER.

No. 341,777.

Patented May 11, 1886.



Witnesses
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UNITED STATES PATENT OFFICE.

GEORGE M. STEPHEN, OF GALESBURG, ILLINOIS.

PORTABLE GAS-HOLDER.

SPECIFICATION forming part of Letters Patent No. 341,777, dated May 11, 1886.

Application filed October 12, 1885. Serial No. 179,697. (No model.)

To all whom it may concern:

Be it known that I, GEORGE M. STEPHEN, a citizen of the United States, residing at Galesburg, in the county of Knox and State of Illinois, have invented certain new and useful Improvements in Portable Gas-Holders, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, forming part of this specification, in which the figure represents an elevation and partial section of a portable gas-holder and water-tank.

My invention relates to portable devices for holding oxygen gas for medicinal purposes; and the same consists, essentially, in a tank having a small opening in its lower portion for the insertion of a plug or stopper, and in the combination of the several devices whereby tanks of various sizes may be filled with gas and transported from place to place, all of which I will hereinafter fully describe and claim.

To enable others skilled in the art to make and use my invention, I will proceed to describe the manner in which I have carried it out.

In the treatment with compound oxygen gas it has been heretofore customary to use a gasometer consisting of a water-tank and a tank for containing the gas, the latter tank having an open bottom and suitable stop-cocks, and a means at the top for attaching a cord and weight, whereby the gas-tank is suspended over the water-tank.

In the operation of the gasometer the gas-tank is first suspended over the water-tank, and the stop-cocks opened, when the inner tank immediately sinks within the water-tank. The sinking of the empty inner tank displaces the water in the outer tank, and the same entering the open bottom of the inner tank forces the air therefrom. The oxygen or other gas is now forced through the upper end of the inner tank, when the water contained therein is forced out, and the gas is ready for use. This manner of charging the gas-holder is an expensive one, and only applicable to large cities and towns.

In my improvement, A represents the ordinary stationary water-tank, of usual construction, and B represents a suitable frame for

suspending the inner or gas-holding tank. This frame has mounted in its top suitable pulleys, *a* and *b*, as illustrated in the figure; but these features I do not claim, broadly, as a part of my invention, as they are old and well-known devices.

The essential feature of my invention is the inner tank or gas-holder, C; and this holder has preferably conical end portions, *c c'*, the former of which is provided with an eye, *d*, to which the cord *e* is attached, and this cord, passing upward over the pulleys *a* and *b* has upon its outer end a weight for counterbalancing the weight of the tank. The lower end of the gas-holder C has a small opening, *g*, which is closed by a removable plug or stopper, *h*.

In the operation of my device the oxygen or other gas is supplied to the gas-holder C at the gas-works or place of manufacture, and when filled the plug or stopper *h* is inserted. The holder may now be transported, and after arriving at its destination it is attached by the cord *e* and lowered until its lower portion nearly touches the water in the stationary tank A. The plug or stopper *h* is now removed, and the gas-holder lowered within the water-tank, when the device is ready for inhalations. The tubes and various attachments being the same as ordinarily used, and forming no part of my invention, are not illustrated in the drawing.

From the foregoing description it is evident that by making the gas-holder portable, the operators in small towns, especially those living in the country, are enabled to dispense oxygen gas with the same facilities as those living in large cities, and when the gas has been exhausted the empty tank or holder may be readily detached and shipped back to the works, where it may be refilled and again used.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with a stationary water-tank, of a portable gas-holder having a small opening in one of its ends, and a removable plug adapted to be withdrawn when the gas-holder is suspended within the water-tank, substantially as and for the purpose herein described.

2. The combination, with a stationary water-tank, a suitable frame, and a cord and weight, of a portable gas-holder provided with conical ends, a means for attachment to the
5 cord at its upper end, an opening in its lower portion, and a removable plug or stopper adapted to close the opening in the bottom, sub-

stantially as and for the purpose herein set forth.

GEORGE M. STEPHEN.

Witnesses:

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