No. 848,964. PATENTED APR. 2, 1907.

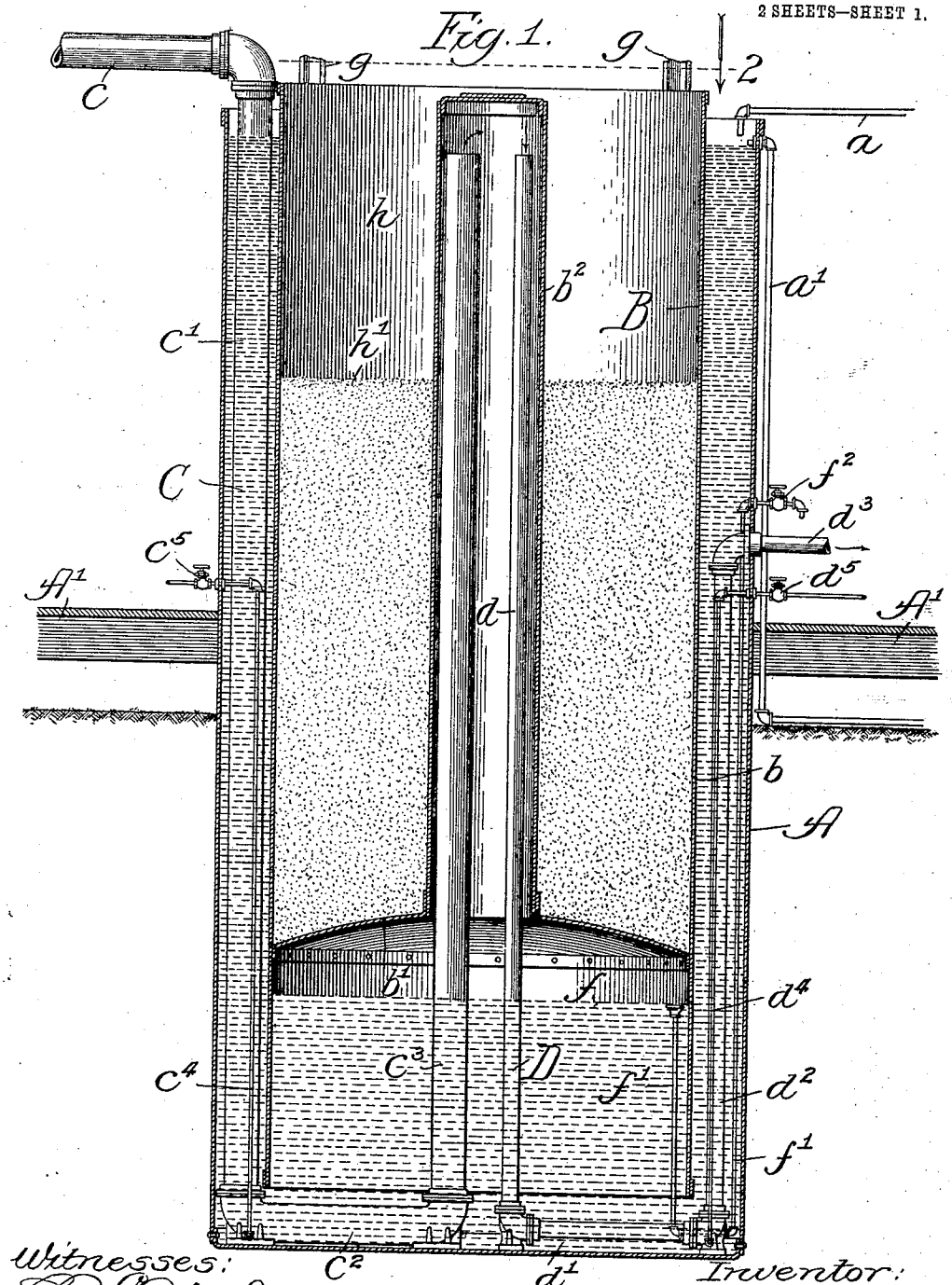
J. J. BUSENBENZ.

GASOMETER.

APPLICATION FILED MAY 26, 1906.

2 SHEETS—SHEET 1.

Fig. 1.



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2 SHEETS—SHEET 2.

Fig. 2.

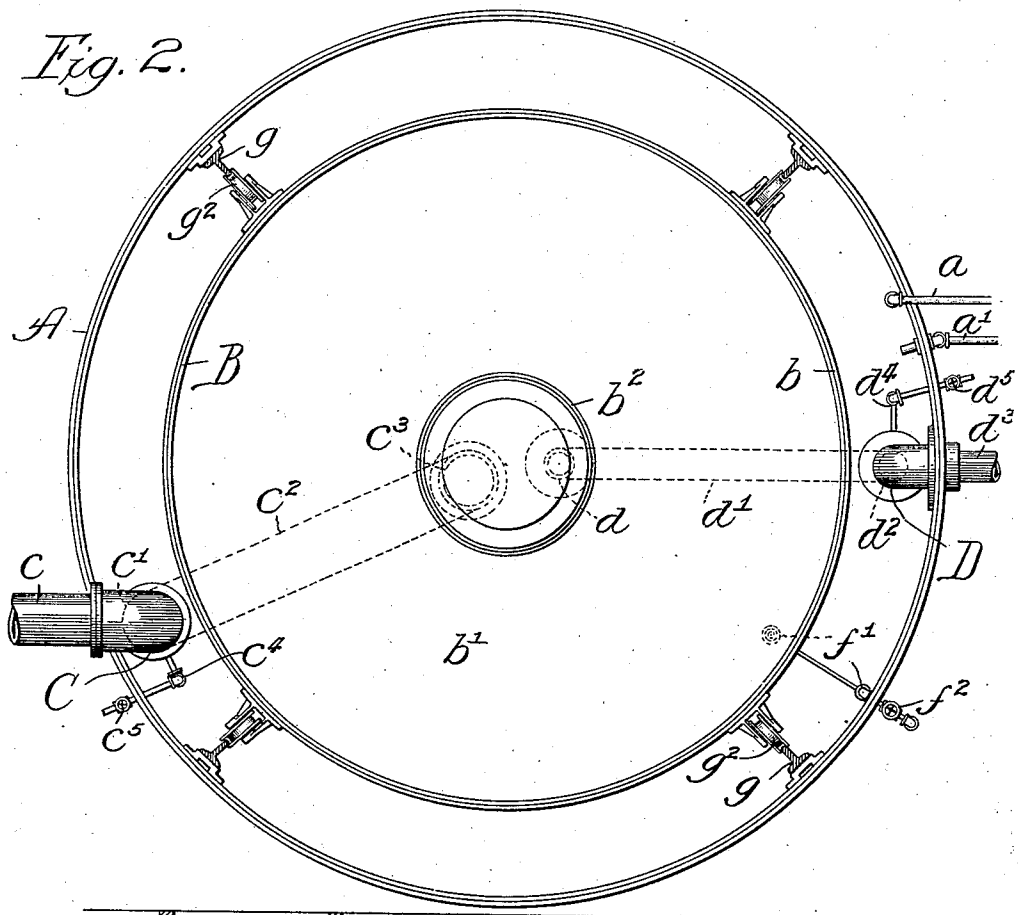
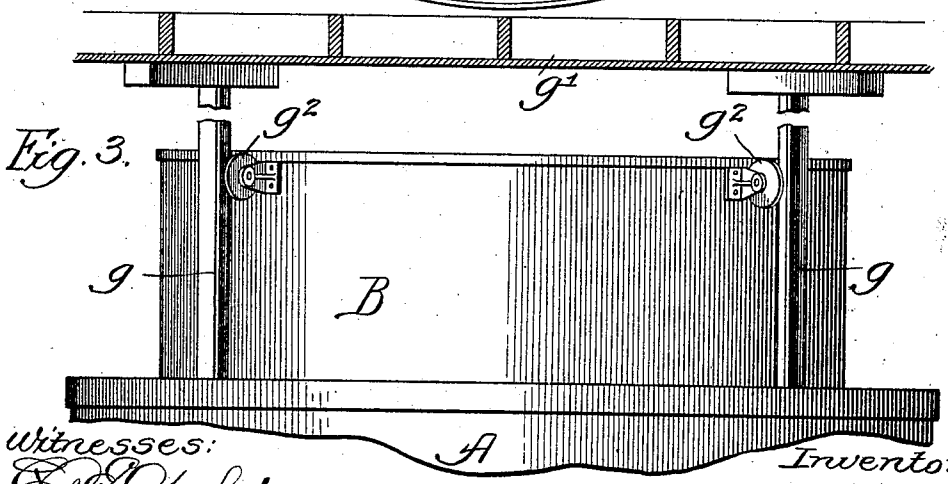


Fig. 3.



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UNITED STATES PATENT OFFICE.

JACOB J. BUSENBENZ, OF CHICAGO, ILLINOIS, ASSIGNOR TO INDUSTRIAL GAS CONSTRUCTION COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

GASOMETER.

No. 848,964. Specification of Letters Patent. Patented April 2, 1907.

Application filed May 26, 1906. Serial No. 318,827.

To all whom it may concern:

Be it known that I, JACOB J. BUSENBENZ, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Gasometers, of which the following is a specification.

My invention relates particularly to gasometers for use in gas-manufacturing plants.

My primary object is to provide a gasometer of economical construction and thoroughly adapted to its purpose.

The invention is illustrated in its preferred embodiment in the accompanying drawings, in which—

Figure 1 represents a vertical sectional view of a gasometer constructed in accordance with my invention; Fig. 2, a view taken as indicated at line 2 of Fig. 1, and Fig. 3 a broken elevational view showing the upper portion of the gasometer.

In the construction illustrated A represents a tank which is partially sunk beneath the floor-line A′ of a building, and B a movable member or bell of the gasometer. The tank A may be of any suitable construction, being preferably built up of boiler-iron. The movable member B comprises a cylinder b, which may be built up of boiler-iron, and a dome b', located within the cylinder b near the lower end thereof and having a central cylindrical upward extension b^2.

C represents a pipe by which gas may be introduced into the gasometer as the gas is manufactured, and D represents an outlet-pipe for the gas.

The movable member B of the gasometer is of sufficiently less diameter than the fixed member A to afford room for the pipes.

The pipe C has a horizontal portion c, located above the top of the tank A, a descending portion c', extending through the annular space between the fixed and movable members of the gasometer, a horizontal portion c^2, resting upon the bottom of the tank A, and an ascending portion c^3, rising to a point near the top of the tank A.

The pipe D has a descending portion d, located within the extension of the bell, a horizontal portion d', resting upon the bottom of the tank A, an ascending portion d^2, extending through the annular space between the fixed and movable members of the gasometer to a point above the floor-line, and a horizontal portion d^3, extending through a lateral wall of the tank A.

The arrows indicate the course of the gas. The portions of the pipes that rest upon the bottom of the tank A preferably have cast integral therewith supports which rest upon the bottom of the tank.

Connected with the pipe C at its lowermost portion is a drain-pipe c^4, which rises adjacent to the vertical portion c' of the pipe C and extends laterally through the wall of the tank A above the floor-line, being equipped outside the wall with a valve c^5.

Connected with the pipe D at its lowermost portion is a drain-pipe d^4, which rises parallel with the portion d^2 of pipe D and has a laterally-extending portion above the floor-line which passes through the wall of the tank A and is equipped outside said wall with a valve d^5.

The tank A is provided with a water-supply pipe a and an overflow-pipe a'.

The water-line within the bell of the gasometer is indicated by the dotted line f, and a drain-pipe f' for the bell of the gasometer extends from the plane of the line f downwardly to a point beneath the lower end of the cylinder b, (in its depressed position,) thence outwardly and upwardly parallel with and adjacent to the portion d^2 of the pipe D to a point above the floor-line, thence laterally through a wall of the tank A, being equipped outside said tank with a valve f^2.

Guides g, connected with the inner surface of tank A, as shown in Fig. 2, extend above the tank A and are connected with the ceiling g', as shown in Fig. 3. The movable member of the gasometer is equipped with rollers g^2, which move on the guides g.

The upper end of the central extension b^2 of the dome b' of the movable member of the gasometer is closed. An annular space h is afforded between the central member b^2 and the inner surface of the cylinder b, which space is utilized for the reception of ballast h'. The ballast may consist of sand, gravel, or the like.

What I regard as new, and desire to secure by Letters Patent, is—

1. The combination of a tank, a movable cylindrical member within said tank and forming therewith an annular chamber, a bell fitted within said cylindrical member near the bottom thereof and equipped with

an upward tubular extension having a closed upper end, an inlet-pipe extending downwardly through said annular chamber from the upper end of said tank, thence to the central portion of said tank at the bottom thereon, thence rising within the extension of said bell, and an outlet-pipe located within said bell and extending downwardly to the bottom of said tank, thence outwardly to a wall of the tank, and thence upwardly within said annular chamber, and finally outwardly through a wall of said tank.

2. The combination of a tank, a movable bell within said tank, a U-shape inlet-pipe for the entrance of gas having a horizontal portion resting on the bottom of said tank, a U-shape outlet-pipe having a horizontal portion resting on the bottom of said tank, and drain-pipes communicating with the lowermost portions of said first-named pipes and extending upwardly and thence outwardly through the lateral walls of said tank.

3. The combination of a tank, a bell in said tank and forming with the tank an annular chamber, and a drain-pipe for the bell having a standing portion rising within the bell to the water-line, said drain-pipe extending laterally at its lower portion, thence upwardly within said annular chamber, and thence laterally through a wall of said tank.

JACOB J. BUSENBENZ.

Witnesses:
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