No. 840,361. PATENTED JAN. 1, 1907.

A. G. ODELL.

ACETYLENE GENERATOR.

APPLICATION FILED AUG. 10, 1906.

Fig. 1.

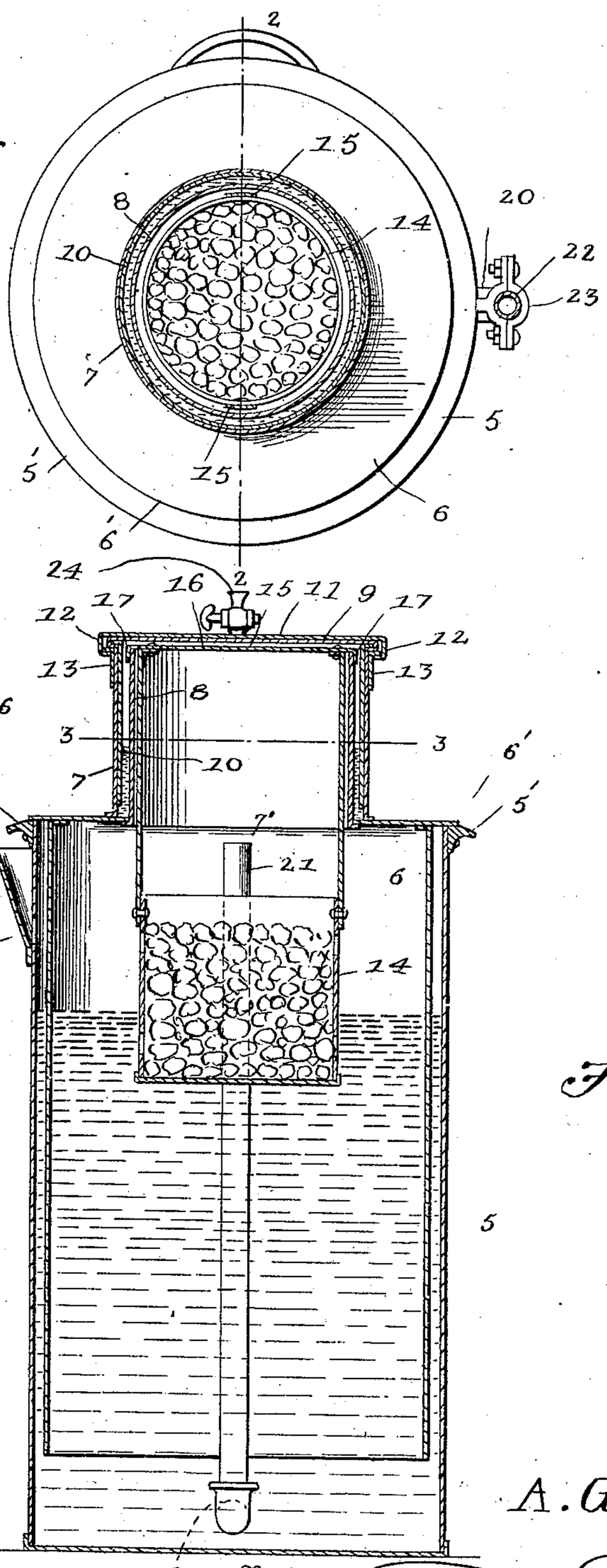

Fig. 2.

Witnesses

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ANCIL G. ODELL, OF MILAN, OHIO.

ACETYLENE-GENERATOR.

No. 840,361. Specification of Letters Patent. Patented Jan. 1, 1907.

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To all whom it may concern:

Be it known that I, ANCIL G. ODELL, a citizen of the United States, residing at Milan, in the county of Erie, State of Ohio, have invented certain new and useful Improvements in Acetylene-Generators; and I do hereby 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 has reference to apparatus for generating acetylene gas, its object consisting in the formation of a simple and comparatively inexpensive device of that class.

The invention resides in the novel construction, combination, and arrangement of the several parts of the apparatus, all as hereinafter fully described, specifically claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a plan view and partial section on the line 3 3 of Fig. 2. Fig. 2 is a vertical section taken on the line 2 2 of Fig. 1.

Like parts are designated by corresponding reference-numerals in both the views.

The apparatus, as shown in the drawings, comprises a fixed tank 5, in which a bell 6 is movable, the upper edge of the tank being provided with an annular flange 5′, upon which the bell-top flange 6′ rests when the bell is in its lowermost position within the tank. The bell-top, which is provided with flat outer and inner faces, has a circular opening 7′ formed centrally therethrough, the wall of said opening being coincident with the inner wall 8 of a generator-dome mounted upon the bell-top. The outer wall 7 of the generator-dome is arranged in spaced relation to the inner wall to provide a space therebetween for the reception of water to serve as a seal for a cover 9, having an annular depending portion or wall 10 extending into the water within such space. The outer face of the cover-top has secured thereto a metal strip 11, the ends of which project beyond the cover-top and are bent inwardly to form the hooks 12 for engagement with the outwardly-extending lips of the lugs 13, secured at diametrically opposite points to the outer wall 7 of the dome.

Mounted within the dome and extending downwardly into the bell is a carbid-holder comprising a perforated basket 14 and a handle portion 15, the side strips of the latter being connected at their upper edges by a horizontal strip 16 of sufficient length to extend at its ends beyond the side strips and having such extended ends bent downwardly to form the hooks 17, which project over the upper edge of the inner wall, and thus serve as a means of support for the holder.

The tank 5 is provided with an inlet-port 18, located near its upper edge, and with an opening 19 adjacent its lower edge, such opening serving as a seat for the horizontal section 20 of the service-pipe, the inner section 21 of which extends within the bell 6 above the level of the water therewithin, while its outer section 22 connects with the main supply-pipe (not shown) to the burners and is held in place against the side of the tank by a bracket 23.

The top of the dome-cover 9 may be provided with an air-outlet valve 24.

In operation after placing water in the space between the walls 7 and 8 of the generator-dome the basket 14 of the carbid-holder is filled with the carbid and suspended, by means of the hooks 17 of its handle portion, from the inner wall of the dome, after which the cover 9 is placed in position and locked by the engagement of the hooks 12 thereon with the lugs 13 on the dome, the cover being rotated until the lugs enter the space between the upper and lower members of the hook, as will be readily described. The tank is then filled through its inlet-port 18, the water extending upward into the bell 6 to a level slightly above the bottom of the basket and below the top of the section 21 of the service-pipe, the gas being generated immediately upon contact of the water with the carbid until the gas-pressure lifts the bell and withdraws the basket from the water. Subsequent consumption of the gas causes the bell to descend until the carbid reaches the water, when the gas generation begins again, the bell being raised as before.

The action of the apparatus from the moment that the parts are placed in operative position may therefore be regarded as automatic, as a fresh supply of gas is generated with each descent of the basket into the water until the entire supply of the carbid is decomposed.

What is claimed as the invention is—

A gas-machine comprising a tank; a bell vertically movable within the tank, and including a top having flat inner and outer faces, and provided with a circular opening formed centrally therethrough; a dome

mounted on the bell-top and comprising inner and outer walls spaced apart to provide a water-space, said inner wall being coincident with the wall of said opening; lugs secured at diametrically opposite points to the outer wall of the dome exteriorly thereof; a removable cover for said dome having an annular depending portion fitting within said water-space; a strap secured to the top of said cover having its opposite ends bent inwardly to form hooks adapted upon rotation of said cover to be moved into engagement with said lugs, to lock said cover in place; a carbid-holder removably mounted within the bell and comprising a basket and a handle, the handle having downwardly-projecting shoulders located at opposite points thereon and adapted to extend over the inner wall of the dome for supporting the basket therefrom; an inlet-port formed in the tank; a service-pipe secured to the tank and including a section extending upwardly within the bell; and an air-valve secured to the dome-cover.

In testimony whereof I affix my signature in presence of two witnesses.

ANCIL G. ODELL.

Witnesses:

FRED A. ROBERTS,

J. O. ADAMS.