

## **Specification of David Gill : deodorizing sewer gas.**

### **Contributors**

Gill, David.

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A.D. 1875,      23<sup>rd</sup> JULY,      N<sup>o</sup> 2621.

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S P E C I F I C A T I O N

OF

DAVID GILL.

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DEODORIZING SEWER GAS.

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LONDON:

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1875.







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A.D. 1875, 23rd JULY. N° 2621.

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**Deodorizing Sewer Gas.**

**LETTERS PATENT** to David Gill, of the Town of Weston-super-Mare, in the County of Somerset, for the Invention of "**IMPROVED METHODS AND APPARATUS FOR NEUTRALIZING AND DEODORIZING THE POISONOUS AND NOXIOUS GASES EMITTED FROM SEWERS AND DRAINS, AND ALSO THE SEWAGE MATTERS CONTAINED THEREIN.**"

Sealed the 16th October 1875, and dated the 23rd July 1875.

**COMPLETE SPECIFICATION** filed by the said David Gill at the Office of the Commissioners of Patents, with his Petition and Declaration, on the 23rd July 1875, pursuant to the 9th Section of the Patent Law Amendment Act, 1852.

5 **TO ALL TO WHOM THESE PRESENTS SHALL COME, I, DAVID GILL,** of the Town of Weston-super-Mare, in the County of Somerset, send greeting.

**WHEREAS** I am in possession of an Invention for "**IMPROVED METHODS AND APPARATUS FOR NEUTRALIZING AND DEODORIZING THE POISONOUS AND NOXIOUS**  
10 **GASES EMITTED FROM SEWERS AND DRAINS, AND ALSO THE SEWAGE MATTERS CONTAINED THEREIN,**" and have petitioned Her Majesty to grant unto me, my executors, administrators, and assigns, Her Royal Letters Patent for the same, and have made solemn Declaration that I am the true and first Inventor thereof.



*Gill's Improved Apparatus for Neutralizing and Deodorizing Sewer Gas.*

NOW KNOW YE, that I, the said David Gill, do hereby declare that the following Complete Specification, under my hand and seal, fully describes and ascertains the nature of the said Invention, and in what manner the same is to be performed, in and by the following statement, reference being had to the annexed Drawings and to the figures and 5 letters marked thereon, that is to say :—

My said Invention consists in certain methods of neutralizing the poisonous, noxious, and offensive qualities of sewer or drain gas, and also of neutralizing the injurious qualities of sewage matters; and of deodorizing the same, and in the construction and arrangement of 10 apparatus for effecting such purposes, the whole constituting in fact a system of fumigation. For these purposes any chemical compound capable of readily evolving chlorine gas may be employed, but other compounds belonging to the class of substances known as “disinfectants,” and capable of being vaporized or of being converted into a gaseous form 15 may be employed, as will be well understood by persons conversant with such or analogous operations.

In order that my said Invention may be clearly understood, I will now refer to the annexed Drawings of the apparatus embraced thereby.

In these Drawings Figure 1 is a sectional view of the apparatus. 20 A is a vessel formed of fire-clay or any other suitable material, and is provided for the purpose of containing the requisite compound or compounds for generating or evolving the desired gases or vapours for fumigation; B is a heating chamber which is also made of fire-clay or any other suitable material, as will be well understood; C is an inlet 25 pipe for the admission of air to drive the gases, fumes, or vapours from the generating vessel forward into the drain; D is an exit pipe from the generating vessel for conveying the gases, fumes, or vapours into the drain; E is the drain; F is a pipe or up shaft which is placed at the most suitable position to the drain, the same being carried upwards 30 to any suitable height. The object of the said shaft is to create a current or draught to draw the fumes down into and through the drain; *a, a*, is a deep groove running round the top of the vessel A, the same being larger than the flange of the cover of the vessel; *b* is the cover with a flange round it which sinks into the groove when it is put on. 35 The groove is filled with water or otherwise suitably arranged for preventing the escape of fumes. *c* and *d* are inlet and exit holes; *e* the



*Gill's Improved Apparatus for Neutralizing and Deodorizing Sewer Gas.*

material or materials for producing the gases, fumes, or vapours;  
*f, f, f, f*, are inlet and exit holes for air to the heating chamber B; *g* is  
the lamp, gas jets, or other source of heat for heating the vessel A; *h* is  
the door (shewn at Figure 2), for communicating with the lamp or gas  
5 or other source of heat; *i* is a cap hinged to the top of the up shaft with  
a wire or chain and ring to raise the cap for the purpose of creating a  
current or draught as before mentioned, or to let down the same in order  
to retain the gases, fumes, or vapours in the drain for any desired length  
of time, and for actuating the cap so as to regulate the flow of such  
10 gases, fumes, or vapours at pleasure.

By the application of my said Invention to sewers and drains, and to  
the sewage matters contained therein, the last-mentioned matters, and  
also the gases or vapours evolved therefrom are neutralized and rendered  
innocuous and also deodorized, and it is manifest that the same is  
15 applicable by means of modifications in the apparatus and in the  
chemical agents employed, which may be adopted without departing  
from the principles thereof to manufactories in which it is desired to  
get rid of impurities or to introduce fresh air, and also to the treatment  
of liquids other than those of the character of sewage.

20 Having thus described and ascertained the nature of my said Invention,  
I would observe in conclusion that I do not claim the several parts of  
the apparatus herein-before described separately and apart from each  
other, but what I consider novel and original, and therefore claim as  
constituting my said Invention are, the methods of and the general  
25 combination and arrangement of apparatus for neutralizing and  
deodorizing the poisonous and noxious gases emitted from sewers and  
drains, and also the sewage contained therein, substantially as herein-  
before set forth and described.

In witness whereof, I, the said David Gill, have hereunto set my  
30 hand and seal, this Twentieth day of July, One thousand eight  
hundred and seventy-five.

DAVID GILL. (L.S.)

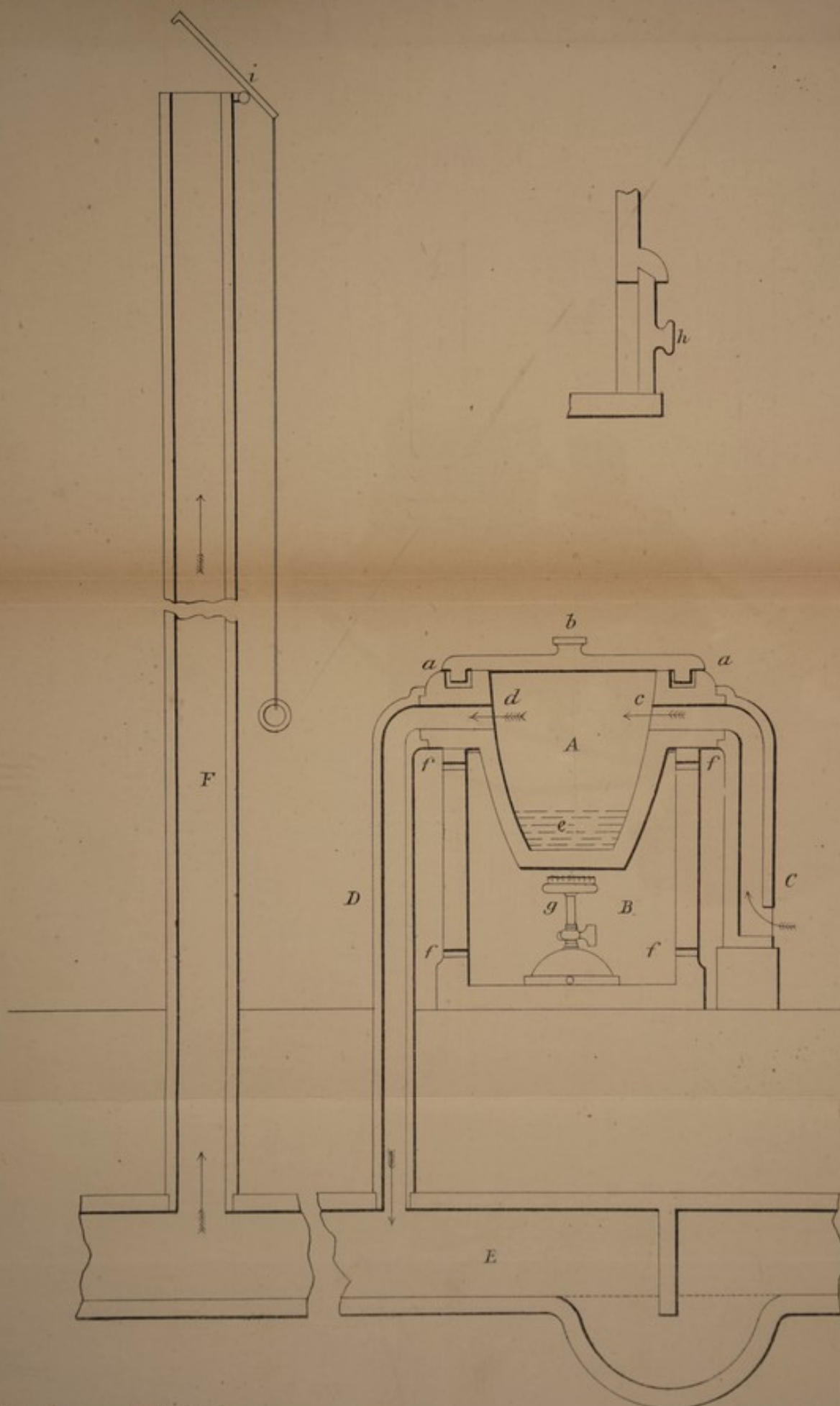
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The filed drawing is not colored.

Drawn on Stone by Melby & Sons.



