

## **Specification of William Henry Hughan : treating sewage.**

### **Contributors**

Hughan, William Henry.

### **Publication/Creation**

London : Great Seal Patent Office, 1874 (London : George E. Eyre and William Spottiswoode)

### **Persistent URL**

<https://wellcomecollection.org/works/qfjat4tj>

### **License and attribution**

This work has been identified as being free of known restrictions under copyright law, including all related and neighbouring rights and is being made available under the Creative Commons, Public Domain Mark.

You can copy, modify, distribute and perform the work, even for commercial purposes, without asking permission.



Wellcome Collection  
183 Euston Road  
London NW1 2BE UK  
T +44 (0)20 7611 8722  
E [library@wellcomecollection.org](mailto:library@wellcomecollection.org)  
<https://wellcomecollection.org>



---

A.D. 1873, 20th August. N° 2760.

---

SPECIFICATION  
OF  
WILLIAM HENRY HUGHAN.

TREATING SEWAGE.

LONDON:

PRINTED BY GEORGE E. EYRE AND WILLIAM SPOTTISWOODE,  
PRINTERS TO THE QUEEN'S MOST EXCELLENT MAJESTY:

PUBLISHED AT THE GREAT SEAL PATENT OFFICE,  
25, BENTHAMTON BUILDINGS, HOLBORN.

1874.







A.D. 1873, 20th AUGUST. N° 2760.

### Treating Sewage.

*(This Invention received Provisional Protection only.)*

**PROVISIONAL SPECIFICATION** left by William Henry Hughan at the Office of the Commissioners of Patents, with his Petition, on the 20th August 1873.

I, WILLIAM HENRY HUGHAN, of Morningside, Eccles, in the County  
5 of Lancaster, Gentleman, do hereby declare the nature of my said  
Invention for "IMPROVEMENTS IN THE TREATMENT OF NIGHT SOIL, SEWAGE, AND  
OTHER LIKE REFUSE MATTERS, AND IN THE PRODUCTION OF MATERIALS CAPABLE OF  
BEING EMPLOYED FOR THE PURPOSES OF DEODORIZATION," to be as follows:—

My Invention relates to the treatment of sewage, night soil, and other  
10 refuse, and consists in employing materials such as peat, sand, sawdust,  
coal, coke, seaweed, or other vegetable matters, and also domestic, town,  
farm, or other refuse or sweepings or ashes in conjunction with clay,  
sand, Portland, or other cement, magnesia, or magnesium, limestone,  
salt, or mixtures of two or more of the same in order that the resulting  
15 combination after having been submitted to a carbonizing process shall  
form what I have termed a cement or carbonized product.

In carrying out my Invention I proceed as follows:—I incorporate  
the before mentioned materials, or some of them, namely, peat, sawdust,  
coal, coke, seaweed, or other vegetable matters, also domestic, town, or



---

*Hughan's Improvements in Treating Sewage.*

---

farm refuse, or sweepings, or ashes with either clay, sand, Portland or other cement, sulphated or otherwise, magnesia or magnesium, limestone, salt, or mixtures of two or more of the same, and after having thoroughly incorporated the same I mould or press the mixture thus obtained, and submit the same to a carbonizing and a distillatory process 5 in such a manner as that the resulting condensible products may be obtained and the gaseous products be collected and may be employed for the purposes of illumination, heating, or otherwise.

The carbonized product may be retained in a solid form and may be employed in such form as a deodorizing agent or otherwise, or the same 10 having been reduced to powder I employ as an absorbent and deodorizer in the treatment of night soil, urine, and other fœcal matters, either alone or in conjunction with the condensed products obtained as before mentioned, and also either with such mixture or sand in conjunction with soluble alkaline silicates, either by mixing the same with the refuse 15 matters to be heated or by filtering such refuse matters through the same.

The proportion to be employed will vary with the substances to be heated, but I have found good results may be obtained by employing, for example, in the treatment of night soil or similar refuse the car- 20 bonized product resulting from the carbonization of the before-mentioned mixtures in about the proportion of such material in a divided condition of one-fourth part by weight of the night soil to be operated upon.

---

LONDON:

Printed by GEORGE EDWARD EYRE and WILLIAM SPOTTISWOODE,  
Printers to the Queen's most Excellent Majesty. 1874.





