

Specification of Augustus Edward Schmersahl : treating sewage.

Contributors

Schmersahl, Augustus Edward.

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A.D. 1874, 11th JUNE. N° 2439.

SPECIFICATION

OF

AUGUSTUS EDWARD SCHMERSAHL.

—
TREATING SEWAGE.
—

LONDON:

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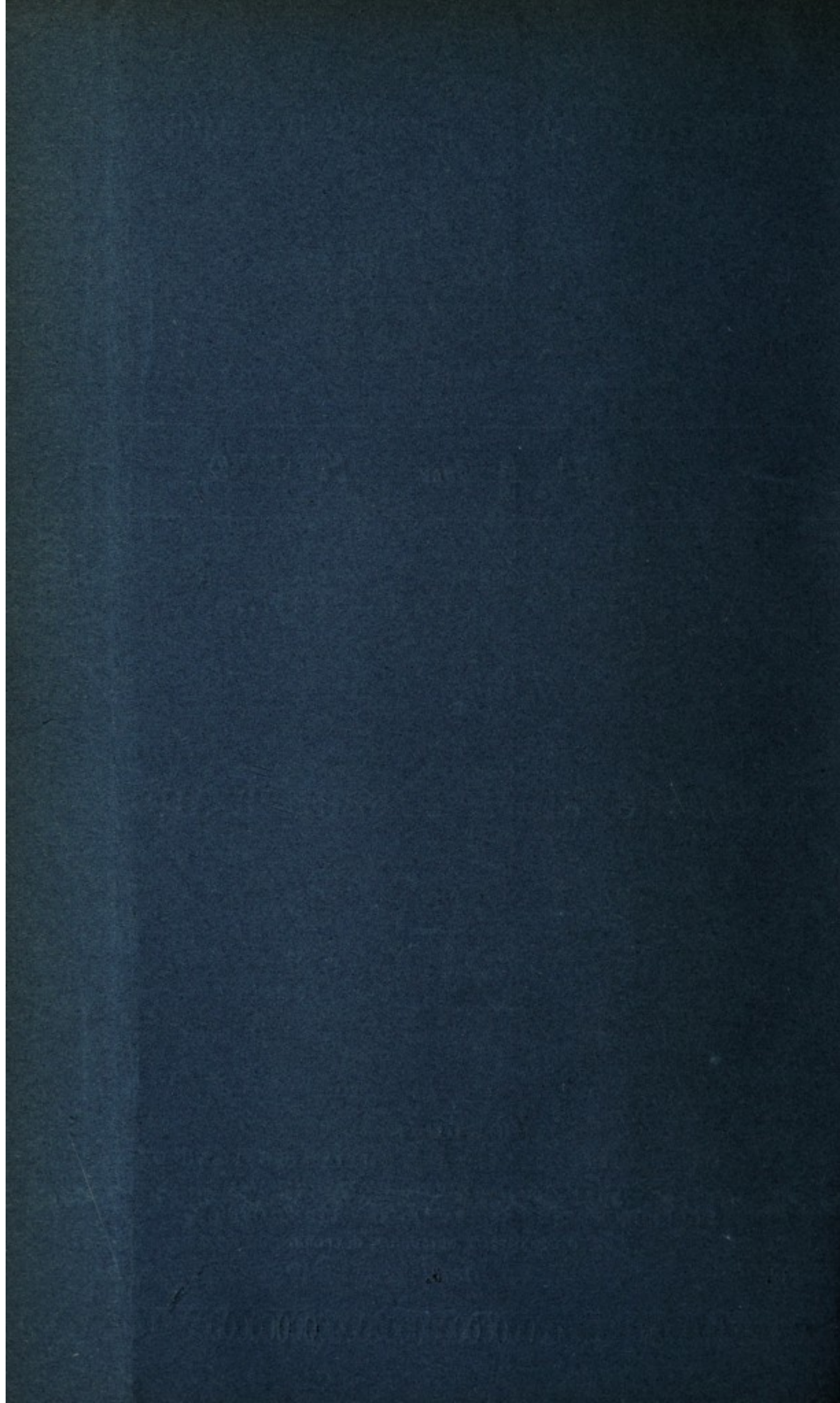
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A.D. 1874, 11th JULY. N° 2439.

Treating Sewage.

LETTERS PATENT to Augustus Edward Schmersahl, of Manchester, in the County of Lancaster, Manufacturing Chemist, for the Invention of "IMPROVEMENTS IN TREATING SEWAGE WATER AND OTHER FOUL LIQUIDS FOR THE PURPOSE OF PURIFICATION, AND IN THE MANUFACTURE OF MANURE."

Sealed the 5th January 1875, and dated the 11th July 1874.

PROVISIONAL SPECIFICATION left by the said Augustus Edward Schmersahl at the Office of the Commissioners of Patents, with his Petition, on the 11th July 1874.

I, AUGUSTUS EDWARD SCHMERSAHL, of Manchester, in the County of Lancaster, Manufacturing Chemist, do hereby declare the nature of the said Invention of "IMPROVEMENTS IN TREATING SEWAGE WATER AND OTHER FOUL LIQUIDS FOR THE PURPOSE OF PURIFICATION, AND IN THE MANUFACTURE OF MANURE," to be as follows:—

My process consists in treating the sewage water or other foul liquid
10 with a mixture of acids, say, two parts of diluted sulphuric acid and one

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part of hydrochloric acid. Of this mixture I use only sufficient to make the sewage or other liquid slightly acid to decompose all matters in combination or solution contained therein; or instead of the acid mixture herein-before mentioned I employ either phospho-muriate of lime, commonly called bone liquor, or chloride of manganese, for the same 5 purpose, and then I add to the so treated sewage or other foul liquid sufficient milk lime to neutralize the acid again. After agitation a precipitate immediately falls, and the effluent water resulting is clear and without smell.

The proportions herein-before stated are varied according to the nature 10 of the sewage or other foul liquid under operation.

By this treatment I produce a precipitate containing all the useful matters in combination, or solution, or suspension in the sewage or other foul liquid; and which precipitate I employ as manure, or in the manufacture of manure when mixed with other suitable ingredients. 15

SPECIFICATION in pursuance of the conditions of the Letters Patent, filed by the said Augustus Edward Schmersahl in the Great Seal Patent Office on the 11th January 1875.

TO ALL TO WHOM THESE PRESENTS SHALL COME, I, AUGUSTUS EDWARD SCHMERSAHL, of Manchester, in the County of Lancaster, 20 Manufacturing Chemist, send greeting.

WHEREAS Her most Excellent Majesty Queen Victoria by Her Letters Patent, bearing date the Eleventh day of July, in the year of our Lord One thousand eight hundred and seventy-four, in the thirty-seventh year of Her reign, did, for Herself, Her heirs and successors, give 25 and grant unto me, the said Augustus Edward Schmersahl, Her special licence, that I, the said Augustus Edward Schmersahl, my executors, administrators, and assigns, or such others as I, the said Augustus Edward Schmersahl, my executors, administrators, and assigns, should at any time agree with, and no others, from time to time and at all times 30 thereafter during the term therein expressed, should and lawfully might make, use, exercise, and vend, within the United Kingdom of Great Britain and Ireland, the Channel Islands, and Isle of Man, an Inven-

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tion for "IMPROVEMENTS IN TREATING SEWAGE WATER AND OTHER FOUL LIQUIDS FOR THE PURPOSE OF PURIFICATION, AND IN THE MANUFACTURE OF MANURE," upon the condition (amongst others) that I, the said Augustus Edward Schmersahl, my executors or administrators, by an instrument in writing
5 under my, or their, or one of their hands and seals, should particularly describe and ascertain the nature of the said Invention, and in what manner the same was to be performed, and cause the same to be filed in the Great Seal Patent Office within six calendar months next and immediately after the date of the said Letters Patent.

10 NOW KNOW YE, that I, the said Augustus Edward Schmersahl, do hereby declare the nature of my said Invention, and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

My process consists in treating the sewage water or other foul liquid
15 with a mixture of acids, say, two parts of diluted sulphuric acid and one part of hydrochloric acid. Of this mixture I use only sufficient to make the sewage or other liquid slightly acid to decompose all matters in combination or solution contained therein. Although I prefer to mix the acids together in the proportion stated, more or less, previous to
20 treating the sewage water or other foul liquid therewith, it will be readily understood that these acids may be added separately to the sewage or other foul liquid; or instead of the acid mixture herein-before mentioned I employ either phospho-muriate of lime, commonly called bone liquor, or chloride of manganese, for the same purpose, and then I
25 add to the so treated sewage or other foul liquid sufficient milk lime to neutralize the acid again. After agitation a precipitate immediately falls, and the effluent water resulting is clear and without smell.

The proportions herein-before stated are varied according to the nature of the sewage or other foul liquid under operation.

30 By this treatment I produce a precipitate containing all the useful matters in combination, or solution, or suspension in the sewage or other foul liquid; and which precipitate I employ as manure, or in the manufacture of manure when mixed with other suitable ingredients.

Having thus particularly described and ascertained the nature of this
35 my said Invention, together with the best methods with which I am acquainted for carrying the same into practical effect, I desire it to be

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understood that I claim, treating sewage or other foul liquids in the manner and for the purpose substantially as herein-before described.

In witness whereof, I, the said Augustus Edward Schmersahl, have hereunto set my hand and seal, this Seventh day of January, in the year of Our Lord One thousand eight hundred and seventy- 5 five.

A. E. SCHMERSAHL. (L.S.)

LONDON:

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Printers to the Queen's most Excellent Majesty. 1875.