

**Specification of George Edward Dering : preserving or preventing decomposition in vegetable and animal substances, &c.;**

**Contributors**

Dering, George Edward.

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A D. 1853. . . . . N<sup>o</sup> 740.

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

OF

GEORGE EDWARD DERING.

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PRESERVING OR PREVENTING  
DECOMPOSITION IN VEGETABLE AND  
ANIMAL SUBSTANCES, &c.

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L O N D O N :

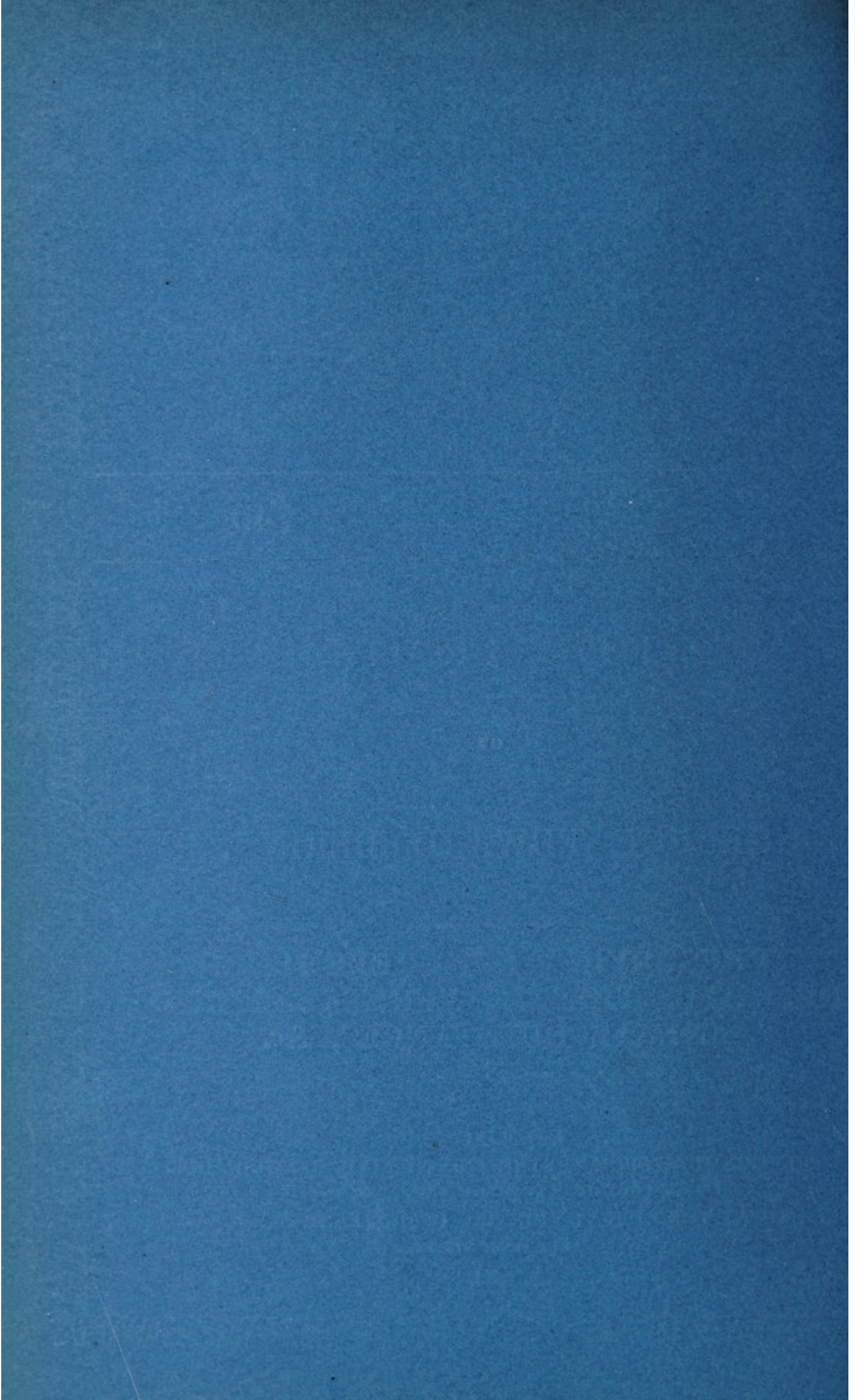
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**Preserving or Preventing Decomposition in  
Vegetable and Animal Substances, &c.**

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**LETTERS PATENT** to George Edward Dering, of Lockleys, in the County of Hertford, for the Invention of "**IMPROVEMENTS IN PRESERVING OR PREVENTING DECOMPOSITION IN VEGETABLE AND ANIMAL SUBSTANCES AND MATTERS.**"

Sealed the 31st May 1853, and dated the 28th March 1853.

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**PROVISIONAL SPECIFICATION** left by the said George Edward Dering at the Office of the Commissioners of Patents, with his Petition, on the 28th March 1853.

I, GEORGE EDWARD DERING, of Lockleys, in the County of Hertford,  
5 do hereby declare the nature of the said Invention for "**IMPROVEMENTS IN PRESERVING OR PREVENTING DECOMPOSITION IN VEGETABLE AND ANIMAL SUBSTANCES AND MATTERS**" to be as follows :

This Invention consists of applying the salts and matters produced in the working of galvanic batteries to the purpose of preserving or  
10 preventing decomposition in vegetable and animal substances and matters, in place of using the metallic salts usually employed dissolved for these purposes.

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*Dering's Impts. in Preventing Decomposition in Vegetable & other Matters.*

**SPECIFICATION** in pursuance of the conditions of the Letters Patent, filed by the said George Edward Dering, in the Great Seal Patent Office, on the 28th September 1853.

**TO ALL TO WHOM THESE PRESENTS SHALL COME, I, GEORGE EDWARD DERING**, of Lockleys, in the County of Hertford, send 5 greeting.

**WHEREAS** Her most Excellent Majesty Queen Victoria, by Her Letters Patent, bearing date the Twenty-eighth day of March, in the year of our Lord One thousand eight hundred and fifty-three, in the sixteenth year of Her reign, did, for Herself, Her heirs and successors, 10 give and grant unto me, the said George Edward Dering, Her special licence that I, the said George Edward Dering, my executors, administrators, and assigns, or such others as I, the said George Edward Dering, my executors, administrators, and assigns, should at any time agree with, and no others, from time to time and at all times thereafter 15 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 Invention for "IMPROVEMENTS IN PRESERVING OR PREVENTING DECOMPOSITION IN VEGETABLE AND ANIMAL SUBSTANCES AND MATTERS," upon the condition 20 (amongst others) that I, the said George Edward Dering, by an instrument in writing under my hand and seal, 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 25 and immediately after the date of the said Letters Patent.

**NOW KNOW YE**, that I, the said George Edward Dering, do hereby declare the nature of the said Invention, and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement thereof (that is to say): 30

This Invention consists of applying the salts and matters produced in the working of galvanic batteries to the purpose of preserving or preventing decomposition in vegetable and animal substances and matters, in place of using the metallic salts usually employed dissolved for these purposes. 35



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*Dering's Impts. in Preventing Decomposition in Vegetable & other Matters.*

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My improvements are applicable to preserving or preventing decay in timber, and most vegetable and animal matters, and the same treatment, in some cases, also answers the secondary purpose of improving or altering the quality of fabrics and substances subjected to it, of  
5 preparing them for some after treatment, as in dyeing processes, and of rendering them unflammable. And my improvements also relate to disinfecting and deodorizing fecal and other matters, in order to prevent the emission of effluvia from them, and to render them serviceable as manure.

10 I am aware that it has long been known that various salts of metals in state of solution or otherwise are effectual for these several purposes. But what I have discovered is, that the solutions containing salts of metals which necessarily result from the working of different kinds of galvanic batteries, and which have generally been considered as refuse  
15 and thrown away, may be advantageously applied to these purposes. It is well known to persons acquainted with the working of galvanic batteries, that it is always customary and advisable to stop their action before the solution has become saturated with the metal in course of combination with it, in consequence of which the resulting liquids will  
20 contain an amount of free acid, or of acid in combination with other matters, as in the case of salts being employed as exciting liquids; and in this respect the processes to which I apply them differ from those in ordinary use for similar purposes. I do not find that this admixture is in general disadvantageous, and in some cases it is even preferable;  
25 should it, however, in any case be advisable to purify the solutions or matters, or to neutralize the free acid which they contain, this may be readily effected by some of the processes described in the specification of my patent for "Improvements in the manufacture of certain salts and oxides of metals," dated the twenty-eighth day of March, One  
30 thousand eight hundred and fifty-three.

The salts which I prefer to all others for the purposes of my present Invention are the sulphate of zinc and chloride of zinc, which result from the working of batteries in which zinc is employed as the positive element, and in the former case sulphuric acid or any suitable sulphate



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*Dering's Impts. in Preventing Decomposition in Vegetable & other Matters.*

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as an exciting liquid, and in the latter case hydrochloric acid or any suitable chloride or muriate. The zinc may be amalgamated with mercury, as is well understood, in order to prevent local action. But my Invention is not confined to the use of these particular compounds, since the various salts of all the different metals that can be employed 5 as positive elements in batteries are more or less applicable for the purposes referred to. The salt solutions from galvanic batteries are to be used in like manner to what has heretofore been practised when using prepared solutions of salts of like metals, all which is well understood. The solutions obtained may require to be reduced in strength 10 by the addition of water, or to be increased in strength by evaporating a portion of the liquid, or to have their qualities altered by the admixture of ingredients suited to improve their efficacy for the particular purpose to which it is intended to apply them. And in some cases it is advisable to reduce the salts to a solid consistency, as 15 described in the specification of my patent for "Improvements in the manufacture of certain salts and oxides of metals," before referred to, and to employ them in this condition, or re-dissolve them for use; all of which will be readily understood by persons acquainted with the processes to which my Invention applies. 20

From the foregoing description it will be understood that the purposes of my Invention are effected by the use of solutions, which necessarily result from the working of different kinds of galvanic batteries, and which have generally been considered as refuse, and thrown away. And since the batteries from which they are derived may all the time be 25 employed in producing motive power, light, heat, or chemical action (such as electro plating or gilding), or other valuable effects, as is well understood, it is obvious that the purposes to which my Invention applies may be effected at a much cheaper rate by employing these refuse matters, than by employing solutions made from salts produced by the 30 ordinary process of manufacture. And the working of galvanic batteries will become highly remunerative, as supplying matters fit for consumption on a large scale for the purposes which I have described, in addition to the ordinary supply of electrical fluid, which may be employed to

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produce motive power for land or water locomotion or stationary use, or any such purposes as steam power is now applied to, or other effects such as those above mentioned.

I wish it to be understood that I do not confine myself to the details  
5 of the description which I have given. But what I claim as my Invention is, the employment for the purposes which I have stated of the solutions and matters resulting from the working of galvanic batteries, whether in the condition in which they came from the battery, or subjected to some after treatment.

10 In witness whereof, I, the said George Edward Dering, have hereunto set my hand and seal, this twenty-sixth day of September, in the year of our Lord One thousand eight hundred and fifty-three.

GEORGE E. DERING. (L.S.)

15 Witness, THOMAS G. ROACH,  
Donegall Pass, Belfast.

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LONDON :

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