

## **Specification of John Gamgee and Arthur Gamgee : slaughtering animals.**

### **Contributors**

Gamgee, John.

Gamgee, Arthur, 1841-1909.

### **Publication/Creation**

London : Great Seal Patent Office, 1867 (London : George E. Eyre and William Spottiswoode)

### **Persistent URL**

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A.D. 1866, 24th SEPTEMBER. N° 2454.

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SPECIFICATION

OF

JOHN GAMGEE AND ARTHUR GAMGEE.

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SLAUGHTERING ANIMALS.

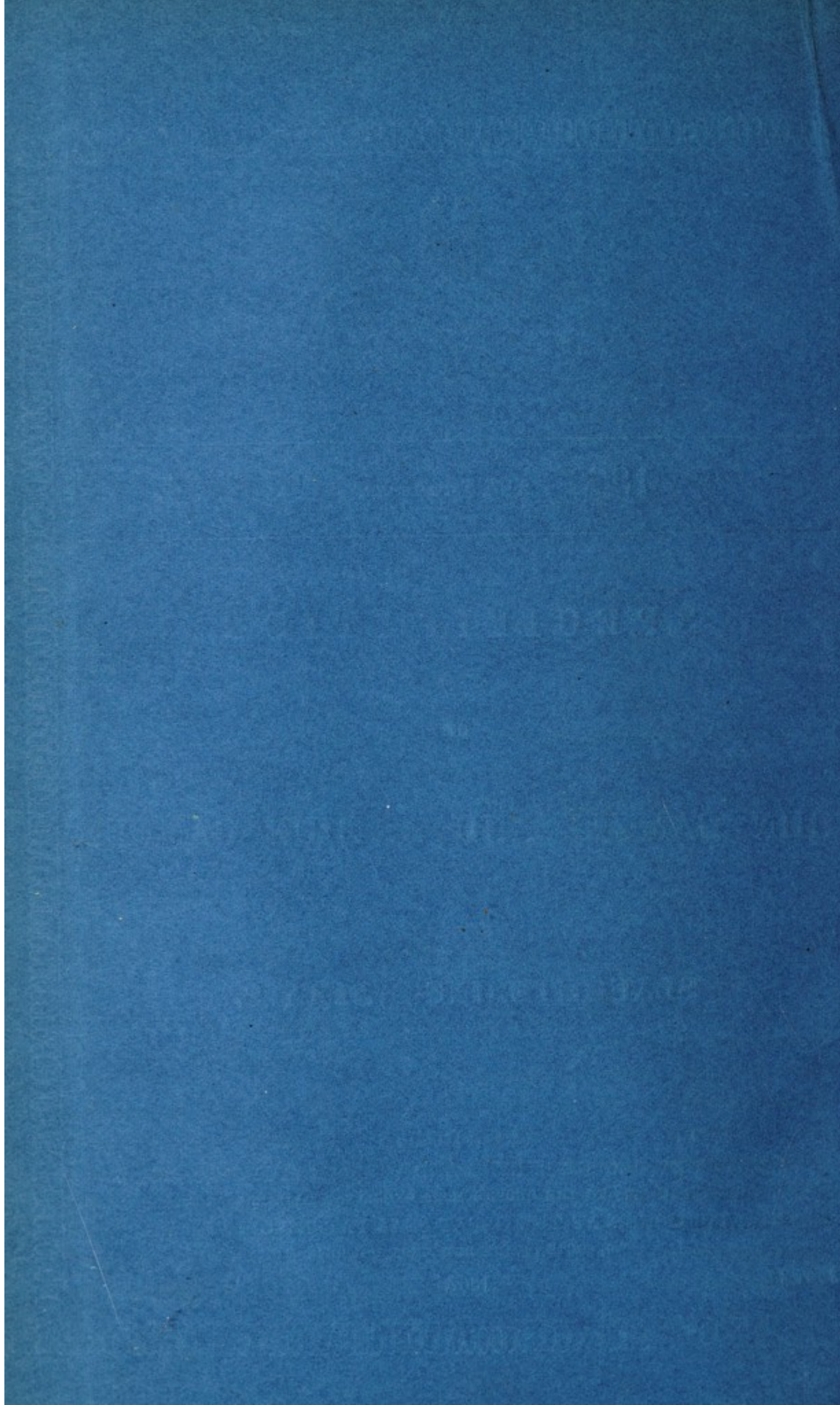
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LONDON:

PRINTED BY GEORGE E. EYRE AND WILLIAM SPOTTISWOODE,  
PRINTERS TO THE QUEEN'S MOST EXCELLENT MAJESTY:  
PUBLISHED AT THE GREAT SEAL PATENT OFFICE,  
25, SOUTHAMPTON BUILDINGS, HOLBORN.

Price 4d.

1867.





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A.D. 1866, 24th SEPTEMBER. N° 2454.

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### Slaughtering Animals.

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**LETTERS PATENT** to John Gamgee, of 28, Queen's Road, Bayswater, in the County of Middlesex, Veterinary Surgeon, and Arthur Gamgee, of 27, Alva Street, in the City of Edinburgh, Doctor of Medicine, for the Invention of "IMPROVEMENTS IN THE SLAUGHTERING OF ANIMALS WITH A VIEW TO THE PRESERVATION OF THEIR BODIES AS ARTICLES OF FOOD, AND IN THE METHOD OF PRESERVING ANIMAL AND VEGETABLE SUBSTANCES."

Sealed the 22nd March 1867, and dated the 24th September 1866.

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**PROVISIONAL SPECIFICATION** left by the said John Gamgee and Arthur Gamgee at the Office of the Commissioners of Patents, with their Petition, on the 24th September 1866.

We, JOHN GAMGEE, of 28, Queen's Road, Bayswater, in the County of Middlesex, Veterinary Surgeon, and ARTHUR GAMGEE, of 27, Alva Street, in the City of Edinburgh, Doctor of Medicine, do hereby declare the nature of the said Invention for "IMPROVEMENTS IN THE SLAUGHTERING OF ANIMALS WITH A VIEW TO THE PRESERVATION OF THEIR BODIES AS ARTICLES OF FOOD, AND IN THE METHOD OF PRESERVING ANIMAL AND VEGETABLE SUBSTANCES," to be as follows:—

10 Our Invention relates in the first place to a new method of slaughtering animals that are destined for human food with a view to the preservation of their bodies for future use as such food, and also to a new method of preserving animal and vegetable substances from decay.

*J. & A. Gamgee's Improvements in Slaughtering Animals.*

With regard to the slaughtering of animals we propose to make them inhale carbonic oxide gas or to introduce the same gas into the blood vessels, or otherwise to cause that gas to act on the blood and flesh of living animals intended to be killed with the aim of obtaining the specific action of the gas on the system of animals so slaughtered. We also propose to inclose animals which have been killed by the means aforesaid, or in any other way, either whole or divided into parts of convenient size in wooden, iron, or other receptacles, which admit of being perfectly closed and which are furnished with tubes for the expulsion and introduction of airs and gases. The air inside such receptacles is to be removed by an air pump or any other suitable apparatus, and then a stream of pure carbonic oxide gas is poured into the vacuum so formed, fish, vegetables, and other edible substances liable to decay or putrefy may be preserved by similar means. In some cases we propose to employ deodorizing and antiseptic agents, such as carbolic acid, creylic acid, and sulphurous acid gas in addition to pure carbonic oxide, for the purpose of preventing or arresting the putrefaction of animal and vegetable substances.

**SPECIFICATION** in pursuance of the conditions of the Letters Patent, filed by the said John Gamgee and Arthur Gamgee in the Great Seal Patent Office on the 23rd March 1867.

**TO ALL TO WHOM THESE PRESENTS SHALL COME**, we, JOHN GAMGEE, of 28, Queen's Road, Bayswater, in the County of Middlesex, Veterinary Surgeon, and ARTHUR GAMGEE, of 27, Alva Street, in the City of Edinburgh, Doctor of Medicine, send greeting.

**WHEREAS** Her most Excellent Majesty Queen Victoria, by Her Letters Patent, bearing date the Twenty-fourth day of September, in the year of our Lord One thousand eight hundred and sixty-six, in the thirtieth year of Her reign, did, for Herself, Her heirs and successors, give and grant unto us, the said John Gamgee and Arthur Gamgee, Her special license that we, the said John Gamgee and Arthur Gamgee, our executors, administrators, and assigns, or such others as we, the said John Gamgee and Arthur Gamgee, our executors, administrators, or assigns, should at any time agree with, and no others, from time to time and at all times 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 Invention for "**IMPROVEMENTS IN THE SLAUGHTERING OF ANIMALS WITH A VIEW TO THE PRESERVATION OF THEIR BODIES AS ARTICLES OF**

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*J. & A. Gamgee's Improvements in Slaughtering Animals.*

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FOOD, AND IN THE METHOD OF PRESERVING ANIMAL AND VEGETABLE SUBSTANCES," upon the condition (amongst others) that we, the said John Gamgee and Arthur Gamgee, by an instrument in writing under our hand and seal, or under the hands and seals of one of us, should particularly describe and ascertain the  
5 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.

NOW KNOW YE, that we, the said John Gamgee and Arthur Gamgee,  
10 do hereby declare the nature of our said Invention, and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement, that is to say :—

Our said Invention relates to a new and improved mode of slaughtering animals that are destined for human food with a view to the preservation of  
15 their bodies for future use as such food, and also to a new method of preserving animals and vegetable substances from decay. The animals whose flesh is to be preserved are, when this is possible, killed by causing them to inhale carbonic oxide gas, which may be generated by the action of heat on a mixture of sulphuric and oxalic acids, or of sulphuric acid and ferrocyanide of potassium, or  
20 by any other method which yields carbonic oxide gas. The animals are then bled and dressed in the usual way, and the flesh may then be sold as human food, and even if it has travelled any distance it will retain a fresh and bright appearance longer than ordinary killed meat. The flesh of animals slaughtered with the aid of carbonic oxide gas or of animals slaughtered in the usual way  
25 may further be preserved as follows :—

Firstly, by being placed in a closed chamber or vessel containing carbonic oxide gas alone, or a mixture of carbonic oxide and air or other gas or vapour for a period varying from two to twenty-four hours with a view to a complete action on the meat and its juices.

30 Secondly, by simple fumigation of the entire carcase or portions of the carcase after the action of carbonic oxide by means of sulphurous acid gas alone or in combination with hydrochloric acid gas.

Thirdly, the flesh to be preserved may be placed in an air-tight vessel of iron, tin, or other material, and provided with two tubes, whereby the  
35 atmospheric air may be withdrawn by means of an air pump or other sufficient means for securing a vacuum. Having thus exhausted the vessel we allow pure carbonic oxide to flow into the vessel, and then add sulphurous acid gas in the proportion of about 20 to 30 cubic inches to each pound of meat to be preserved. Having thus secured that nothing but carbonic oxide and sulphurous

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*J. & A. Gamgee's Improvements in Slaughtering Animals.*

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acid gases surround the meat, the vessel is hermetically closed by squeezing and soldering the tubes above mentioned.

Having now described our Invention, we wish it to be understood that we do not confine ourselves to the precise details of the various operations, nor to the proportions herein laid down, as the same may be altered without 5 departing from the principle of our Invention; but what we claim and wish to be protected is,—

Firstly, the use of carbonic oxide in the process of preserving animals whose flesh is to be used as human food, whether by causing animals to inhale carbonic oxide gas as they die, or by placing the meat in chambers or vessels 10 containing carbonic oxide alone or in conjunction with other gases or vapours.

Secondly, the use of carbonic oxide in combination with antiseptic agents, for the purpose of preserving animal and vegetable substances.

In witness whereof, I, the said John Gamgee on behalf of myself and the said Arthur Gamgee, have to this our Specification set my hand 15 and seal, this Twenty-third day of March, One thousand eight hundred and sixty-seven.

JOHN GAMGEE. (L.S.)

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LONDON:

Printed by GEORGE EDWARD EYRE and WILLIAM SPOTTISWOODE,  
Printers to the Queen's most Excellent Majesty. 1867.

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