

Specification of William Trueman Yule : preserving animal and vegetable matters.

Contributors

Yule, William Trueman.

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A.D. 1845 N° 10,496.

SPECIFICATION

OF

WILLIAM TRUEMAN YULE.

PRESERVING ANIMAL AND VEGETABLE
MATTERS.

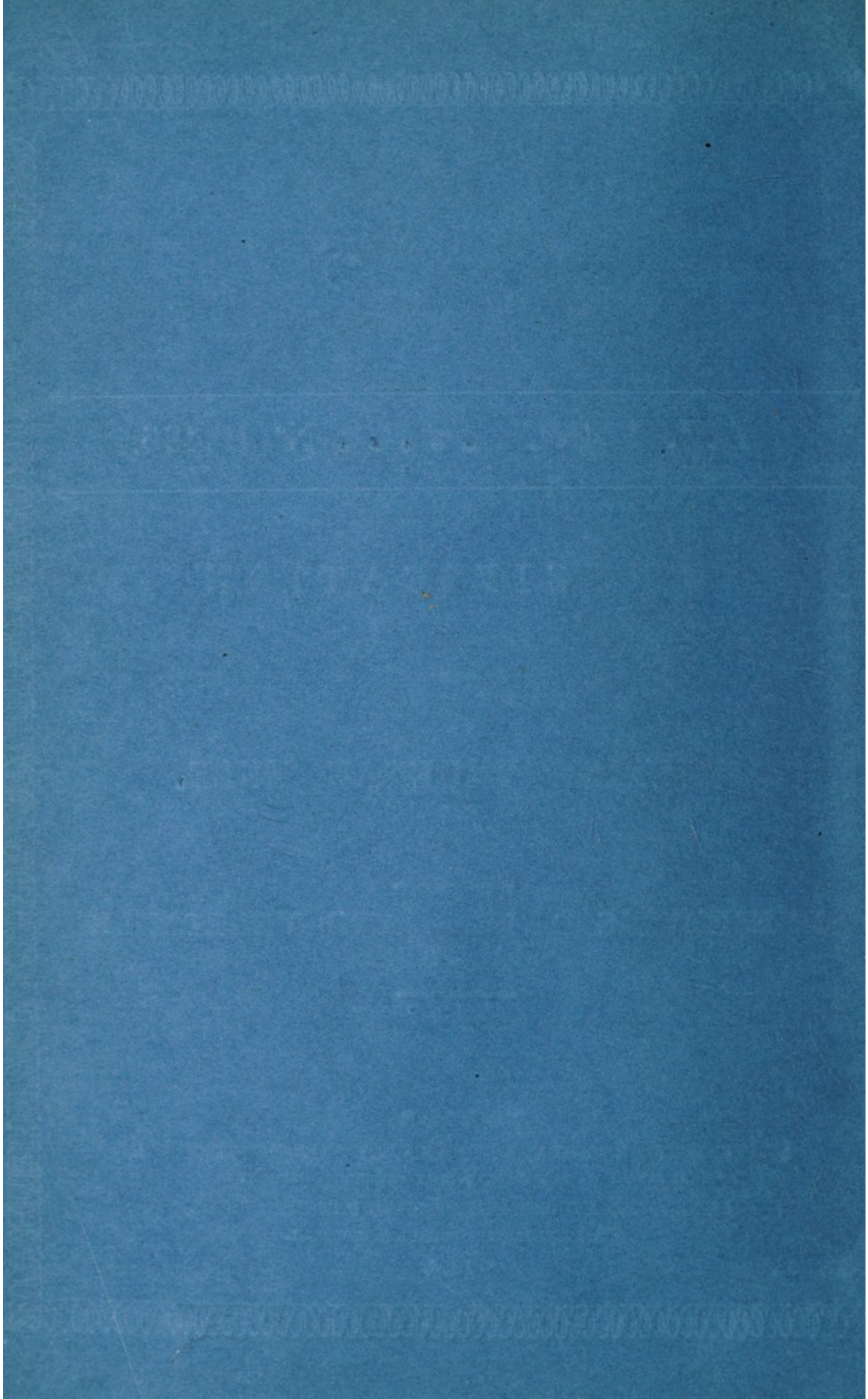
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A.D. 1845 N° 10,496.

Preserving Animal and Vegetable Matters.

YULE'S SPECIFICATION.

TO ALL TO WHOM THESE PRESENTS SHALL COME, I, WILLIAM TRUEMAN YULE, of Wilson Street, Finsbury Square, in the County of Middlesex, Preserved Provision Manufacturer, send greeting.

WHEREAS Her present most Excellent Majesty Queen Victoria, by Her
5 Letters Patent under the Great Seal of Great Britain, bearing date at Westminster, the Twenty-eighth day of January, in the eighth year of Her reign did, for Herself, Her heirs and successors, give and grant unto me, the said William Trueman Yule, Her especial licence, full power, sole privilege and authority, that I, the said William Trueman Yule, my exors, admors, and
10 assigns, or such others as I, the said William Trueman Yule, my exors, admors, or assigns, should at any time agree with, and no others, from time to time, and at all times, during the term of years therein expressed, should and lawfully might make, use, exercise, and vend, within England, Wales, and the Town of Berwick-upon-Tweed, and in the Islands of Guernsey,
15 Jersey, Alderney, Sark, and Man, and also in all Her said Majesty's Colonies and Plantations abroad, my Invention of "IMPROVEMENTS IN PRESERVING ANIMAL AND VEGETABLE MATTERS;" in which said Letters Patent is contained a proviso that I, the said William Trueman Yule, shall cause a particular description of the nature of my said Invention, and in what manner the
20 same is to be performed, to be inrolled in Her said Majesty's High Court of Chancery within six calendar months next and immediately after the date of the said in part recited Letters Patent, as in and by the same, reference being thereunto had, will more fully and at large appear.

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NOW KNOW YE, that in compliance with the said proviso, I, the said William Trueman Yule, do hereby declare that the nature of my said Invention, and the manner in which the same is to be performed, are fully described and ascertained in and by the following Statement thereof, that is to say:—

My Invention consists, First, of a means of drying animal and vegetable matters when preserving the same. 5

Secondly, my Invention consists of keeping animal and vegetable matters dry when preserving them in closed vessels. The drying animal and vegetable matters consists in passing currents of air, dried by passing it through calcined chloride of calcium, or other chemical absorbants of moisture, and then over or through the substances to be dried. The keeping animal and vegetable matters dry when preserving them in closed vessels consists in placing such matters, with chloride of calcium or other similar absorbents of moisture, in closed vessels rendered vacuous, the chemicals used being kept from contact with the matters to be preserved. In operating by the first method, viz^t, by a current of dried air, the substances to be dried should either be hung up in a chamber of an oblong form, and the chemically dried air passed rapidly through the chamber, or when they do not admit of being hung up, they should be thinly spread on a shelf or shelves, and the air passed rapidly over them. The matters to be preserved may be either cooked or uncooked, and subdivided or not, according to the nature of the matters. The calcined chloride of calcium, which I believe is the best for the purpose of drying the air, may be placed in a vessel connected to and communicating with the oblong chamber at one end, or with the blowing machine, which may be either a fan or a piston and cylinder. If the vessel containing the chloride of calcium is connected with the blowing machine, the connection is to be made when the air is admitted to it; and when the air has egress it is to be attached to the chamber; in this case the air will be drawn through the chloride of calcium and blown through the chamber; on the other hand, if the vessel containing the chloride be attached to the chamber, the blowing machine is to be placed at its further extremity, and then the air will be drawn first through the chloride, and then through the chamber, and either over or through the matters to be dried, according as they are disposed. The vessel containing the chloride of calcium, broken into pieces of the size of wallnuts) has a grating at its lower end, which supports the matter above, and as the chloride of calcium becomes dissolved it flows into a vessel below, and the same, being evaporated to dryness and calcined, is again placed at the top of the vessel. It will be found economical to have four or five shelves in each chamber for receiving the matters to be dried, so disposed that the same current of air will pass over them all. 40

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The second part, viz^t, "keeping dry." The great affinity calcined chloride of calcium possesses for water is well known; it is also well known that decomposition in animal or vegetable substances takes place much more slowly in a dry than in a moist atmosphere. According to this part of my
5 Invention, I take advantage of these properties to preserve for a longer time such substances, animal or vegetable, as have already been more or less perfectly dried, or more or less perfectly preserved with an antiseptic, such as hams, tongues, cheese, dried fruits, vegetables, &c., and the plan I adopt is to put them in vessels or cases along with the chloride of calcium, but so disposed
10 as not to touch. The vessels or cases I generally make use of are made of tin; and I consider it advantageous to make a partial vacuum in the cases or vessels when the matters are very moist, and thin I do by means of an air pump; and the quantity of chloride of calcium I use generally a tenth of the weight of the substance to be preserved, but I vary this proportion according to the
15 state of dryness in which I find the substance to be preserved when put into the cases. The partial vacuum is not essential when the substances to be preserved are wholly or nearly wholly dried, such as well-dried hams. In packing the vessels I place the chloride of calcium in quantities of about a pound weight, and broken into pieces of about the size of a walnut, in blotting
20 paper or calico, and pack the same in with the articles to be kept dry, and thereby preserved, and I fill up the interstices of the interior of the vessels with the husks of corn, and sometimes exhaust the air from the vessel after it has been closed (by soldering on the cover), such exhaustion being performed by an air pump or other convenient means affixed to the vessel by a pipe, and
25 I employ a guage to indicate the vacuum when operating. I then close the vessel air tight. To connect the barometer with any vessel I wish to extract the air from, I fix the one end of piece of tin about five feet long and quarter of an inch in the bore, to the top of the barometer, and the other end I put through a hole punched in the vessel, just large enough to receive it, and
30 solder it round on the outside. When the vacuum is made, I close the pipe with a pair of pincers, and then with a small nippers I cut it off close to and just over where I caught it with the pincers, and then turmetrically seal it by drawing a soldering iron across it; the pipe being made of tin, this is easily done. I use the tin tube so long as about eight feet, that the
35 vibration caused in the pipe when working the air pump in exhausting the vessel may be less felt when it is joined to the barometer, and so seam the joint. The air pump I connect in a similar manner to the vessel. I solder one end of a tin tube to a piece of hollow brass screwed to fit the hole in the centre of the plate of the air pump, and join the other end, as before described, to the

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vessel, and cut it off, and hermetically seal in the same way. If the animal or vegetable matters have not been dried before putting them into the vessels, then I exhaust the air, and use a much larger proportion of chloride of calcium. The quantity I use in this case is three or four times the weight of the matters to be dried, care being used to keep the chloride of calcium, by the 5 mode pointed out, from contact with the articles to be dried and kept dry thereby.

Having thus described the nature of my Invention, and the best means I am acquainted with for performing the same, I would have it understood that what I claim is:—First, the preserving animal and vegetable matters by 10 drying the same by the aid of streams of air dried by chemical means as herein described. And, secondly, I claim the preserving animal and vegetable matters in closed vessels, by drying and keeping them dry by means of chloride of calcium or other similar chemical absorbents.

In witness whereof, I, the said William Trueman Yule, have hereunto 15 set my hand and seal, this Twenty-eighth day of July, in the year of our Lord One thousand eight hundred and forty-five.

WILLIAM TRUEMAN (L.S.) YULE.

AND BE IT REMEMBERED, that on the Twenty-eighth day of July, in the year of our Lord 1845, the aforesaid William Trueman Yule came 20 before our said Lady the Queen in Her Chancery, and acknowledged the Specification aforesaid, and all and every thing therein contained and specified, in form above written. And also the Specification aforesaid was stamped according to the tenor of the Statute made for that purpose.

DUCKWORTH.

Enrolled the twenty-eighth day of July, in the year of our Lord one 25 thousand eight hundred and forty-five.

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