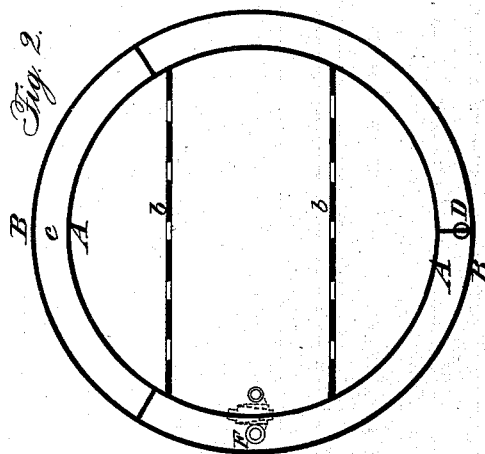
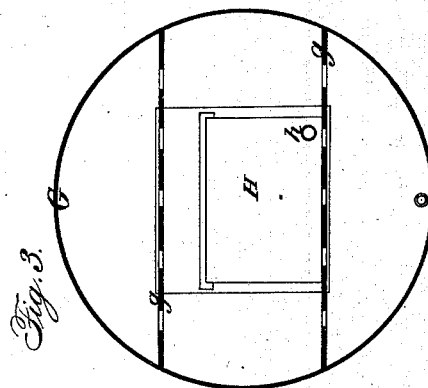
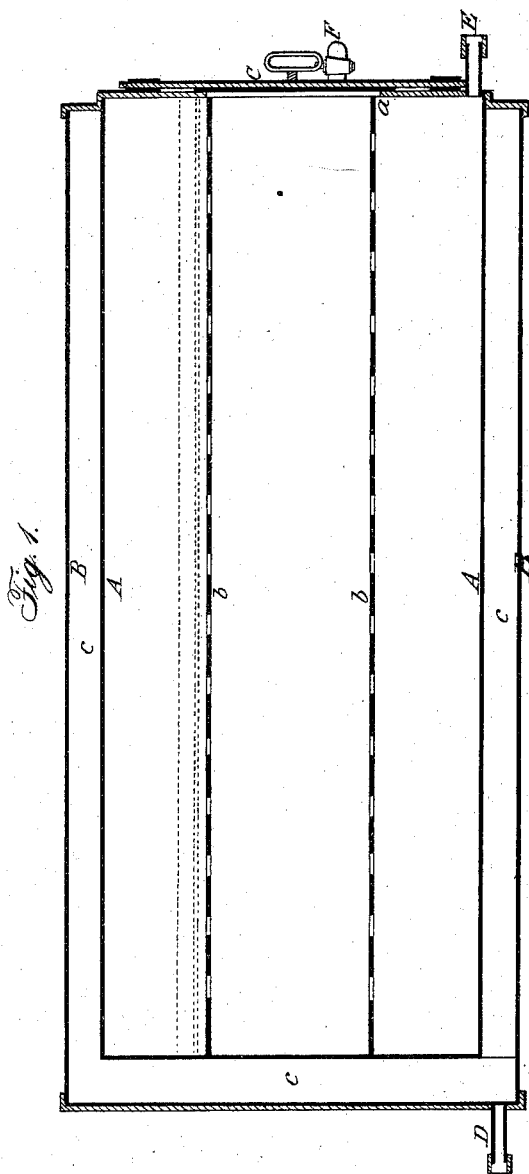


J. CHILCOTT.  
Making Extracts.

No. 47,393.

Patented Apr. 25, 1865.



Witnesses:

*D. H. Coombs*  
*Geo W Reed*

Inventor:

*John Chilcott.*

# UNITED STATES PATENT OFFICE.

JOHN CHILCOTT, OF BROOKLYN, NEW YORK.

IMPROVED APPARATUS FOR OBTAINING EXTRACTS FROM VEGETABLES, &C.

Specification forming part of Letters Patent No. **47,393**, dated April 25, 1865; antedated April 20, 1865.

*To all whom it may concern:*

Be it known that I, JOHN CHILCOTT, of 70 Fulton street, in the city of Brooklyn, county of Kings, and State of New York, have invented a new and useful Improvement in the Process of Obtaining Extracts from Vegetables and other Substances by Heat; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a central longitudinal vertical section of an apparatus for performing my invention. Fig. 2 is a transverse section of the same. Fig. 3 is a transverse section of a modification of the same.

Similar letters of reference indicate corresponding parts.

This invention relates to the obtaining by steam heat of oils or other extracts from such seeds or other vegetable or other substances as would be injured by direct contact with steam during the whole of or a certain stage of the process, or as do not require the direct contact of steam to obtain their extracts; and to this end it consists in placing such substances upon perforated shelves arranged in a steam-tight chamber or receptacle, which is arranged or placed within another chamber or receptacle into which steam is admitted, or in which it is generated, and therein surrounded with an atmosphere of steam, by which a nicely-regulated heat can be applied to the said substances.

It also consists in providing for the admission of steam from the outer chamber to the inner one whenever desirable at any stage of the process by means of a suitable connecting-pipe.

To enable others skilled in the art to make and use my invention, I will proceed to describe it with reference to the drawings.

A, Figs. 1 and 2, is a steam-tight chamber provided with perforated shelves *b b*, on which the substance from which extracts are to be made are placed to allow the extracts to run out freely. This chamber is arranged within a steam-chamber, B, in such manner that a steam-space, *c*, is left all around it, except at the front end, where there is an opening or man-hole, *a*, fitted with a steam-tight door or

man-lid, C, for the introduction of the substances to be treated and their removal after the extracts have been obtained.

D is a steam-pipe for the introduction of steam at a suitable pressure and temperature into the chamber B from a boiler conveniently situated; and E is a pipe connected with the lower part of the chamber A, for drawing off the extracts obtained from the substances placed therein.

F is the connecting-pipe for admitting steam from the chamber B to the chamber A, when desirable, said pipe being fitted with a stop-cock to shut off the steam from A when it is not desirable to admit it.

The process is conducted in this apparatus in the following manner: The substances to be heated having been placed on the shelves *b b*, the door or man-lid C is closed, and steam admitted by the pipe D into the chamber B to heat the chamber A and its contents, and the liquid extracts obtained by the action of the heat run down through the perforated shelves to the bottom of the latter chamber, and are drawn off by the pipe E.

In case of its being desirable to admit steam into the substances to be treated at any stage of the process, it is done by opening the cock in the pipe F.

The steam, instead of being admitted to the chamber B from a separate boiler, may be generated from a suitable quantity of water placed therein and subjected to the heat of a fire under the said vessel.

The apparatus shown in Fig. 3 consists of an outer chamber, G, furnished with perforated shelves *g g*, and having an opening at one end fitted with a movable steam-tight door, which is opened for the introduction and removal of steam-tight boxes H, in which the substances from which the extracts to be made are placed, and which are placed upon the said shelves. The steam is admitted into or generated in the chamber G and circulates around and heats the boxes and their contents, and the extracts are drawn off from the said boxes by suitable pipes, *h*, at the bottoms thereof, after their removal from the steam-chamber, the said pipes being closed during the extracting process. The said boxes must be furnished with movable steam-tight lids or doors for the introduction and removal of the sub-

stances from which the extracts are to be made, and they may be furnished with perforated shelves for the reception of the substances to be treated.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. Subjecting the substances to the action of heat in a steam-tight chamber or box, in which they are separated by perforated shelves, and in which they are surrounded by an atmosphere of steam, but protected from direct contact with the steam during the whole or

any portion of the extracting process, substantially as herein described.

2. Providing between such chambers a connecting steam-pipe, F, by which steam can be admitted among the substances under treatment during any stage of the process, substantially as herein specified.

JOHN CHILCOTT.

Witnesses:

J. W. COOMBS,  
GEO. W. REED.