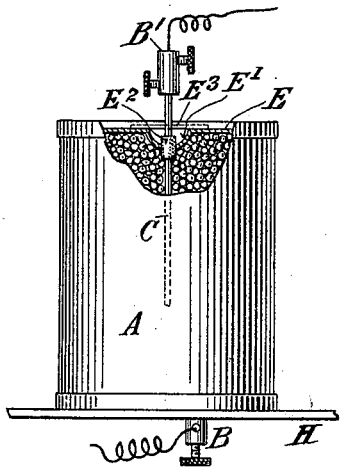
No. 645,569. Patented Mar. 20, 1900.

# I. L. ROBERTS.

## RECEPTACLE FOR STERILIZED PERISHABLE SUBSTANCES.

(Application filed Nov. 18, 1896.)

(No Model.)




Witnesses:
Raphael Netter
Percy W. Cooper.

Isaiah L. Roberts, Inventor
by Ken. Curtis & Page. Attys

# UNITED STATES PATENT OFFICE.

ISAIAH L. ROBERTS, OF NEW YORK, N. Y.

## RECEPTACLE FOR STERILIZED PERISHABLE SUBSTANCES.

SPECIFICATION forming part of Letters Patent No. 645,569, dated March 20, 1900.

Application filed November 18, 1896. Serial No. 612,566. (No model.)

*To all whom it may concern:*

Be it known that I, ISAIAH L. ROBERTS, a citizen of the United States, residing at New York, (Brooklyn,) in the county of Kings and State of New York, have invented certain new and useful Improvements in Receptacles for Containing Sterilized Perishable Substances, of which the following is a specification, reference being had to the drawing accompanying and forming a part of the same.

The invention which forms the subject of my present application is an improved receptacle or can for containing and preserving perishable substances which have undergone sterilization by the action on them of an alternating electric current.

It is known that the living germs or organisms in any substance capable of conducting an electric current may be destroyed or their development arrested without altering or impairing the natural quality of such substances by passing through them an alternating electric current or one possessing similar physiological properties.

The object of my invention is to provide a practical means for utilizing this knowledge in the process of canning or preserving foods and perishable articles; and to this end the invention consists in a vessel or receptacle of special construction in which the substances may be inclosed and sterilized by the electric current under temporary seal, which excludes air, and then permanently sealed up.

The improvement is shown in the accompanying drawing, in which A represents a can, the bottom and sides of which are of the usual construction; but in the center of the top E, I make a depression E′, with a small hole in its center, through which is inserted a short piece of rubber tubing $E^2$.

I solder to a short length of wire a strip of tin C and force the wire up through the rubber tube until the end of strip C is about two-thirds of the height of the can from the top.

When the can is prepared, it is filled with meat, fish, fruit, or the like to as near the top as practicable. The top is then soldered on, the strip C being pushed down into the substance filling the can. The can is thus made air-tight and is ready for the treatment of the substance in it. If this substance, as shown in the drawing, is fruit or the like, the interstices of the can should be filled with some liquid, such as sugar and water, which will conduct the current to all parts of the contents. I then place the can, assuming it to be of metal, on a metallic plate H, which is provided with a metallic connector B. One wire from a source of alternating current powerful enough to kill or destroy the bacteria within the can, but not to burn or injure its contents in the period of its application, is connected to connector B and the other wire to a connector B′ on the wire supporting the strip C. The can thus becomes one electrode and the strip C the other, and the current is passed through the conducting contents for a few seconds. After the lapse of about an hour the current is again passed, and this is repeated at intervals of an hour, more or less, for several hours or until the entire contents of the can are thoroughly sterilized. The wire is then cut off in the depression and a plate $E^3$, of tin, is soldered on over the depression to permanently seal the can and exclude bacteria of any kind.

By the use of this device I have been able to preserve for long periods in a perfectly-natural state various foods and perishable products. The cans when completed by the addition of the sealing device are in condition to be handled, packed, and transported without liability to injury.

Having now described my invention, what I claim is—

1. A vessel or receptacle for preserving electrically-sterilized meats, fish, fruits and other articles of food, composed of a conducting material and provided with an interior insulated electrode with a connector extending therefrom through the wall of the receptacle, and a sealing device, as set forth.

2. The combination with a can or vessel of conducting material having a depression in one of its walls, an insulated conductor extending through a perforation in said depression, an electrode within the can connected with said conductor, and a plate or cap for covering the depression and sealing up the can, as set forth.

ISAIAH L. ROBERTS.

Witnesses:
M. LAWSON DYER,
DRURY W. COOPER.