

W. B. FENN.
 TREATING CHAMBER FOR STERILIZING MACHINES.
 APPLICATION FILED NOV. 25, 1910. RENEWED FEB. 2, 1914.
 1,109,976. Patented Sept. 8, 1914.
 2 SHEETS—SHEET 1.

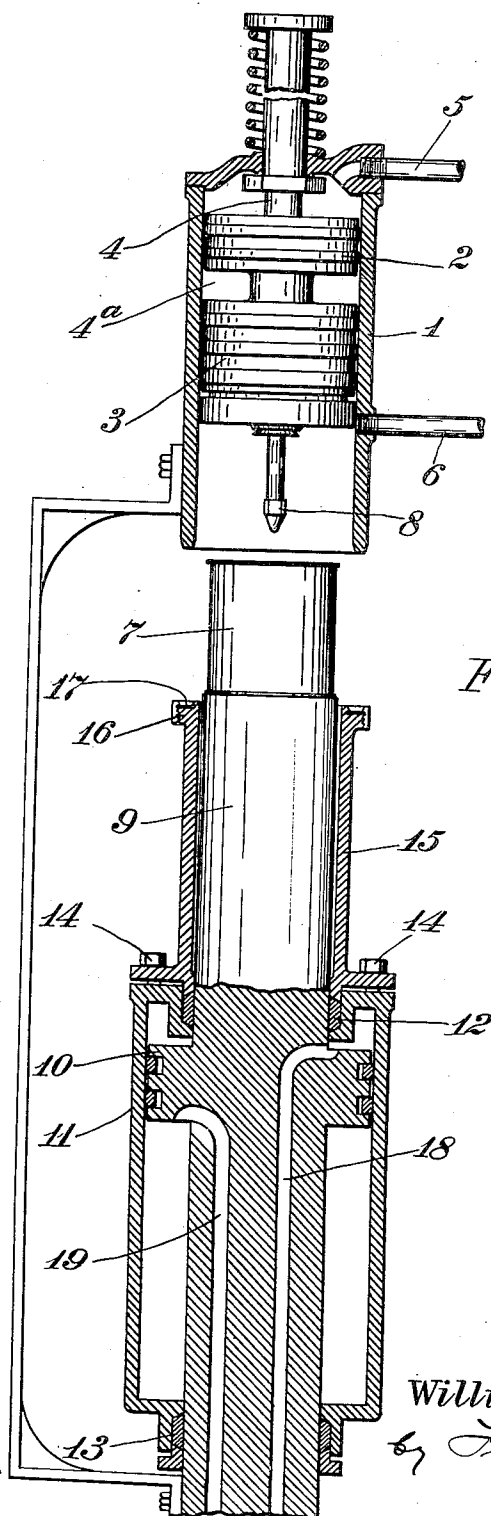


Fig. 1.

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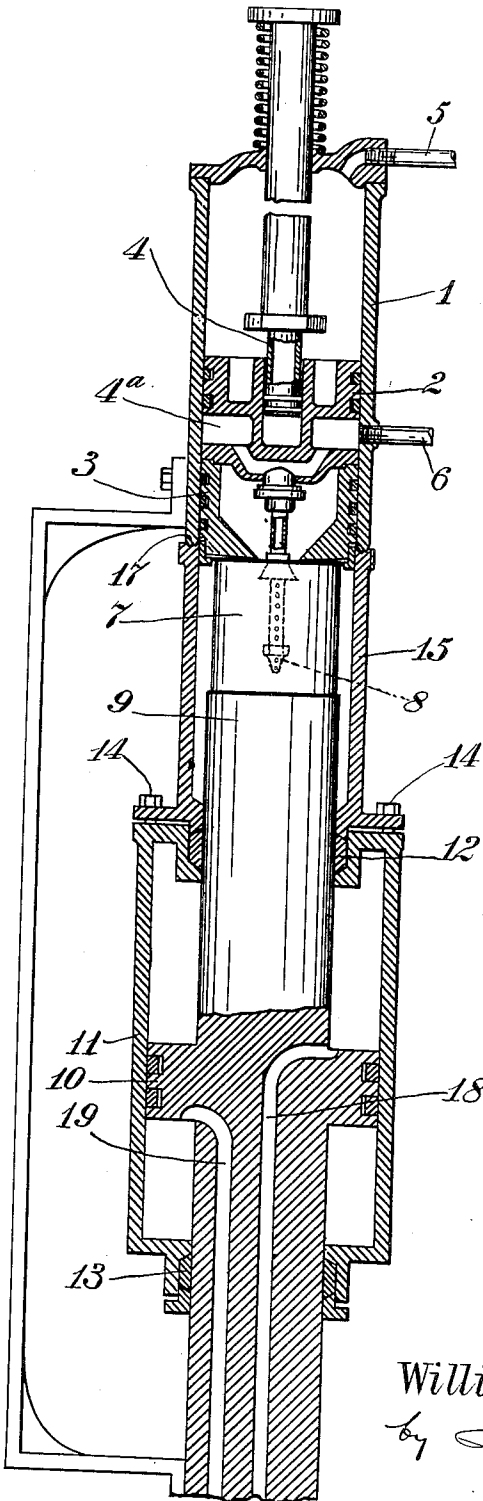


Fig. 2.

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UNITED STATES PATENT OFFICE.

WILLIAM B. FENN, OF COLUMBUS, OHIO, ASSIGNOR TO THE WEDOIT COMPANY, OF COLUMBUS, OHIO, A CORPORATION OF OHIO.

TREATING-CHAMBER FOR STERILIZING-MACHINES.

1,109,976.

Specification of Letters Patent.

Patented Sept. 8, 1914.

Application filed November 25, 1910, Serial No. 594,138. Renewed February 2, 1914. Serial No. 816,087.

To all whom it may concern:

Be it known that I, WILLIAM B. FENN, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented a certain new and useful Improvement in Treating-Chambers for Sterilizing-Machines, of which the following is a specification.

The object of this invention is to provide an improved means for confining a vessel containing a material to be treated—as for example a food to be sterilized.

The invention is embodied in the construction herein shown and described and then pointed out in the claims at the end of the description.

In the accompanying drawing Figure 1 illustrates partly in vertical section and partly in elevation, a construction according to the invention and Fig. 2 is a vertical section of the treating chamber and devices therein.

In said drawing 1 designates a cylindrical chamber which is designed to be fixed vertically. Said chamber contains a piston 2 and a piston-like head 3. The piston 2 and head 3 are secured on or are movable with reference to a rod or tube 4 extending upward through the head of the chamber. The members 2 and 3 are separated from each other by a space at 4^a. The chamber 1 is provided with fluid pressure conductor 5 at its upper end through which pressure can be admitted or exhausted from the chamber above the piston, and a conductor 6 through which a treating fluid—steam for example—can be admitted to treat the contents of the vessel 7 containing the material to be treated.

8 designates a nozzle on the head 3 for penetrating the material in the vessel 7 said nozzle being in the form of a tube preferably laterally perforated and connected with passages in the head so as to distribute the treating medium delivered from the conductor 6 through the material.

9 designates a vertically standing and vertically stationary column having thereon an annular enlargement 10 of piston form. Surrounding the column at the region of the piston-like enlargement is a cylinder 11 provided with packings at 12 and 13 to form fluid tight joints above and below the piston-like enlargement. The cylinder is capable of being reciprocated on the column. At the upper end of the cylinder is secured

by bolts 14 a sleeve 15 of about the length of that portion of the column which extends above the piston enlargement or preferably so that when the cylinder is depressed to the limit of its down stroke the upper end of the column will be exposed to permit the vessel 7 to be slid onto the upper end thereof by a horizontal movement. The upper end of the sleeve 15 is provided with seat 16 for the lower end of the chamber 1, said seat being provided with a soft packing 17 so that when the sleeve is moved up against the end of the chamber the vessel is fluid tightly inclosed at that region. The lower portion of the column is provided with ducts 18 and 19 that open respectively above and below the piston-like enlargement of the column but within the cylinder and the supply ends of said ducts are at the exterior of said cylinder so that by admitting a pressure fluid to the cylinder above the piston projection and exhausting the fluid below such projection the cylinder and the sleeve it carries can be elevated, and conversely by admitting pressure fluid below such projection and exhausting the fluid above the piston the sleeve can be depressed. When the sleeve is elevated it surrounds the vessel and when depressed the vessel is exposed for removal. With this construction the vessel is not vertically moved but remains at the horizontal plane of the seat at the upper end of the column. After the sleeve has been moved up to inclose the vessel fluid pressure is admitted to the upper side of the piston 2 which depresses the head and projects the treating nozzle into the contents of the vessel containing the material to be treated, and at the same time brings the opening 4^a opposite the discharge end of the conductor 6. The admission of the treating material to and through the nozzle may take place simultaneously with or at any time subsequent to the closing of the sleeve on the chamber this being a matter of choice and to be regulated by the operator or by the mechanism that may be provided for performing that operation.

What I claim is:

1. In apparatus for treating materials, the combination with a chamber, and means in connection therewith for applying a treating material, of a vertically stationary column for supporting a vessel containing material to be treated, a sleeve movable on

said column, and means for raising said sleeve against the aforesaid chamber to inclose a vessel supported on said column.

2. In apparatus for treating materials, the combination with a chamber, and means in connection therewith for applying a treating material, of a vertically stationary column for supporting a vessel containing material to be treated, a sleeve movable on said column, means including a cylinder movable on said column, a piston on said column within the cylinder and ducts for admitting and exhausting fluid pressure at opposite ends of said cylinder to elevate said sleeve against the aforesaid chamber to inclose a vessel supported on said column.

3. In apparatus for treating materials, the combination with a chamber, and means in connection therewith for applying a treating material, of a vertically stationary column for supporting a vessel containing material to be treated, a sleeve movable on said column, means including a cylinder movable on said column, a piston on said column within the cylinder, and a duct for admitting fluid pressure to an end of said cylinder to cause the same to move said sleeve against said chamber to inclose a vessel supported on said column.

4. In apparatus for treating materials, the combination with a chamber, and means in connection therewith for applying a treating material, of a vertically stationary column for supporting a vessel containing material to be treated, a sleeve movable on said column, means including a cylinder movable on said column, and a piston on said column within the cylinder, said column provided with a duct for admitting fluid pressure to an end of said cylinder to cause the same to move said sleeve against said chamber to inclose a vessel supported on said column.

5. In apparatus for treating materials, the combination with a chamber, and means in connection therewith for applying a treating material, of a vertically stationary column for supporting a vessel containing material to be treated, a sleeve movable on said column and means including a cylinder movable on said column and a piston on said column within the cylinder, said column provided with ducts for conveying a fluid pressure to the opposite ends of said cylinder to reciprocate the same with reference to said chamber.

6. In apparatus for treating materials, the combination with a chamber, and means in connection therewith for applying a treating material, of a vertically stationary column for supporting a vessel containing material to be treated, a sleeve movable on said column, means for raising said sleeve against the aforesaid chamber to inclose a vessel supported on said column and means for lowering said sleeve to expose the vessel on said column.

7. In apparatus for treating materials, the combination with a chamber, and means in connection therewith for applying a treating material, of a column for supporting a vessel containing material to be treated, a sleeve fitting the said column, the said column and sleeve being relatively movable vertically, means for effecting relative vertical movement between the sleeve and the aforesaid chamber to inclose a vessel supported on said column and means for again effecting relative movement between the sleeve and chamber to expose the vessel on said column.

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