

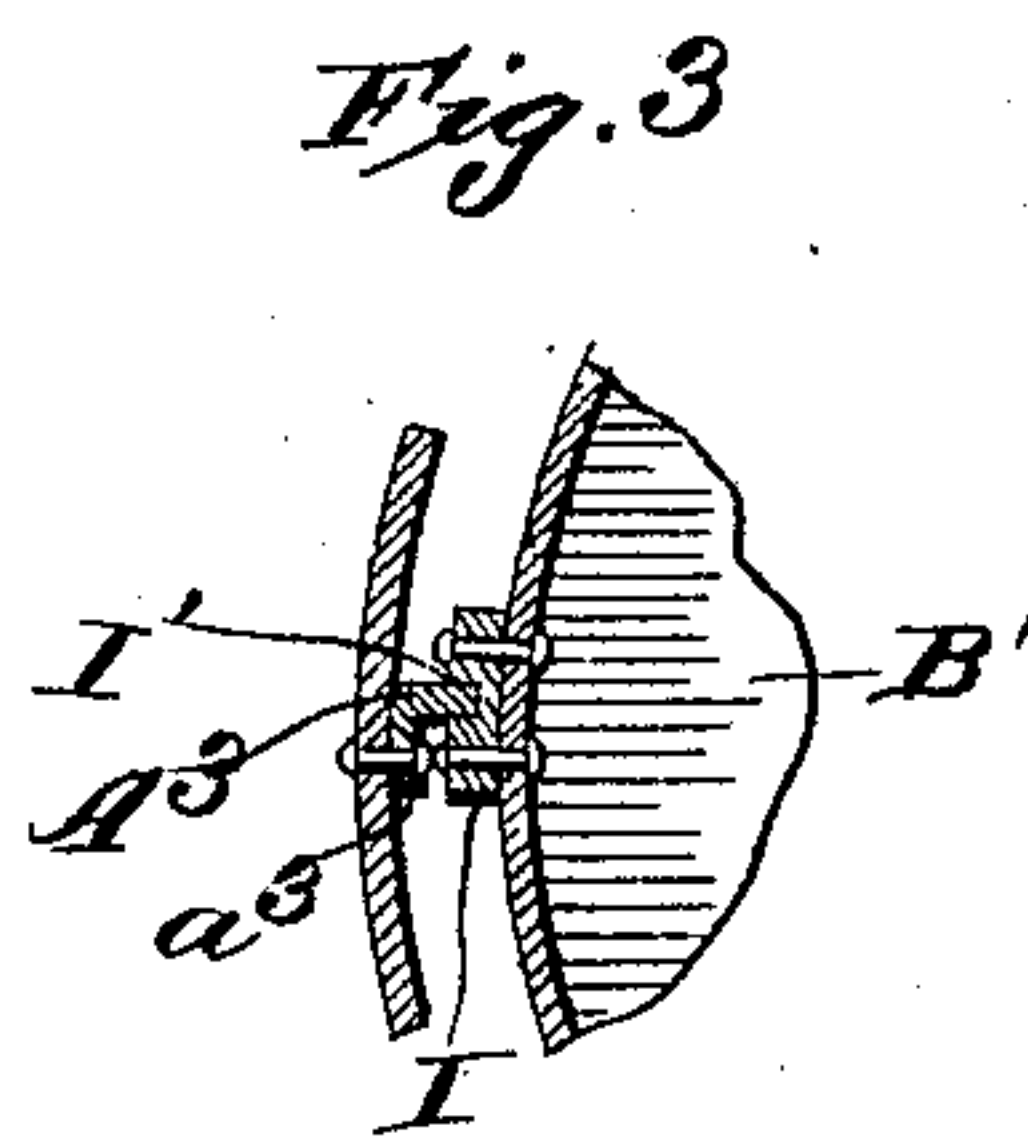
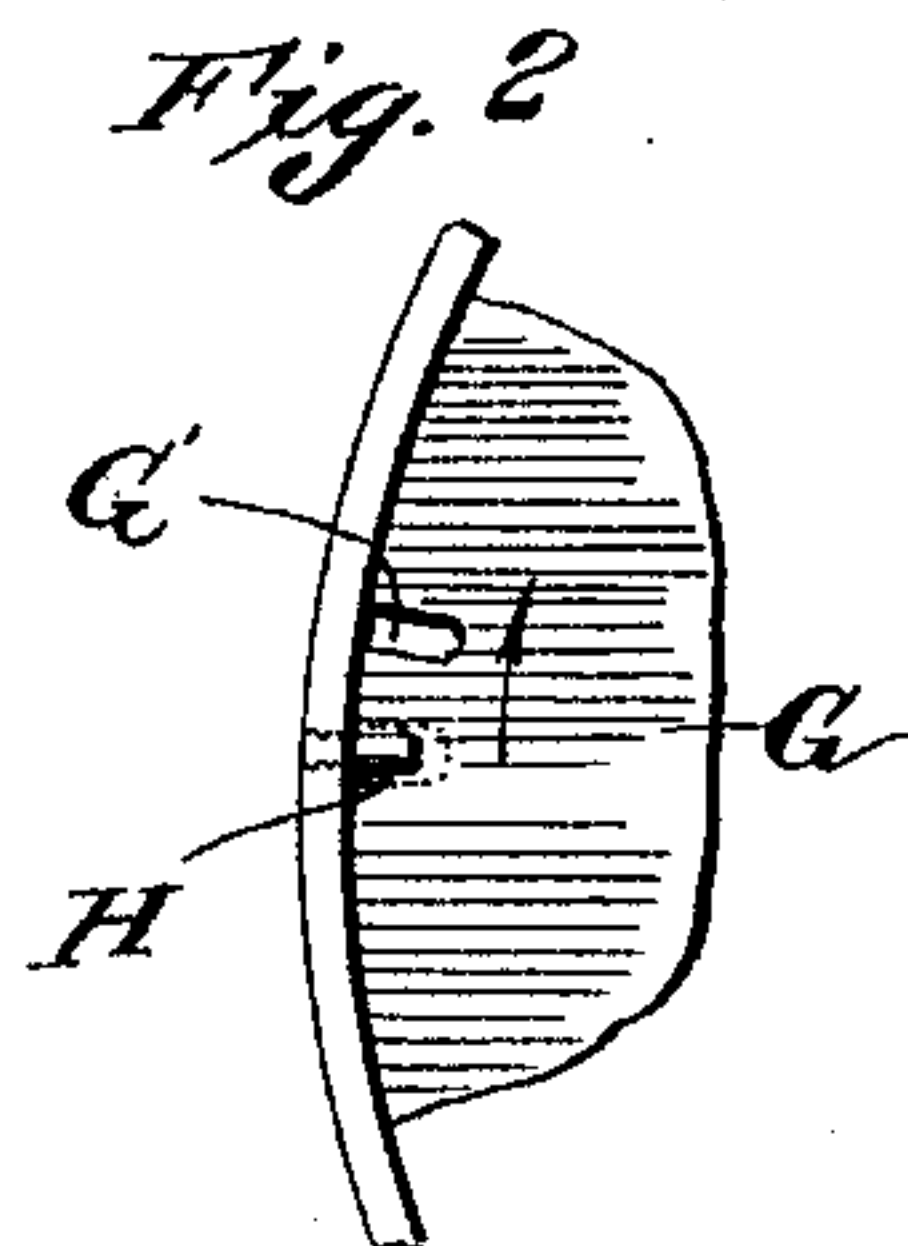
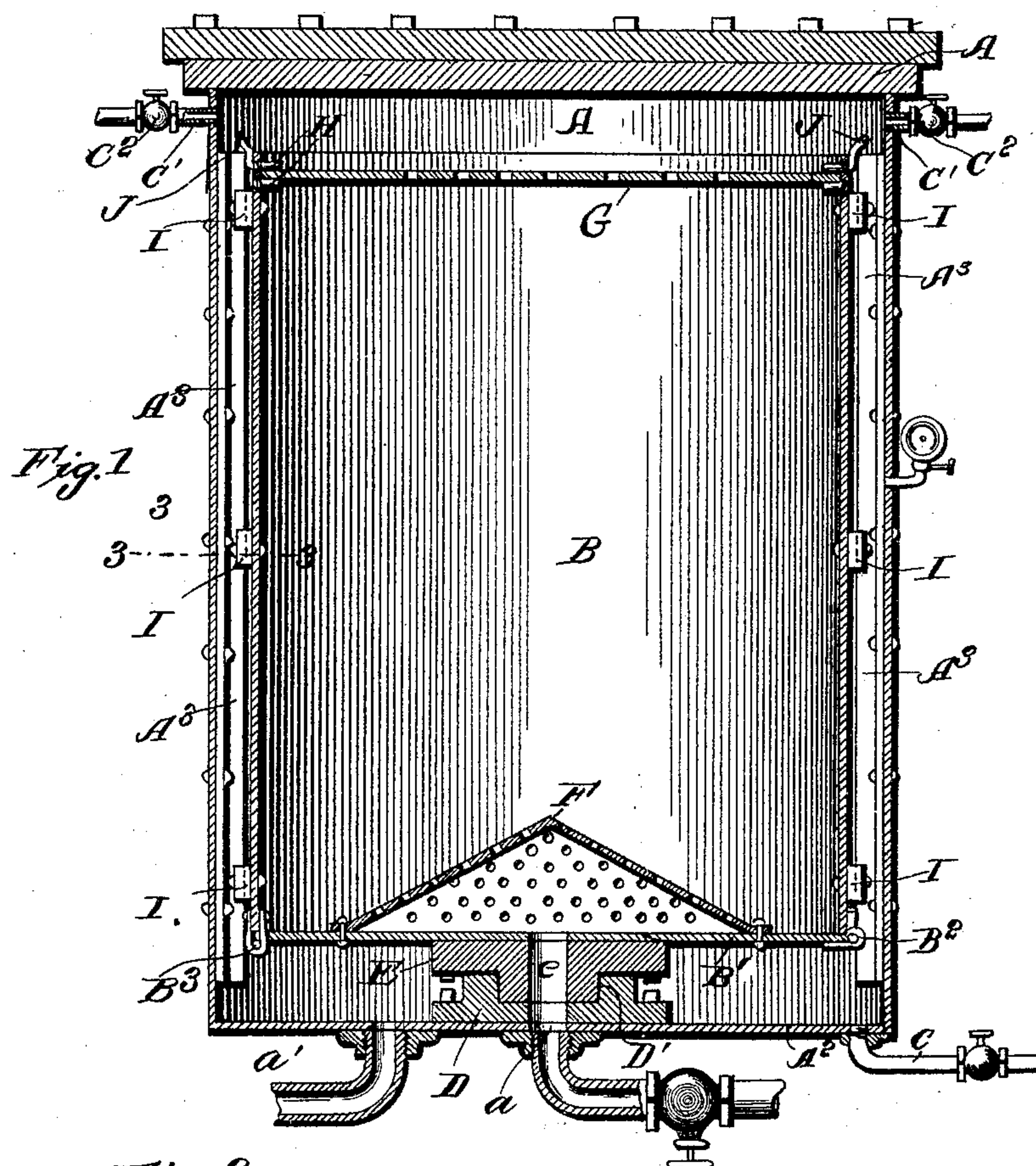
No. 799,470.

PATENTED SEPT. 12, 1905.

G. KETCHUM.
RETORT.

APPLICATION FILED MAR. 18, 1905.

2 SHEETS—SHEET 1.



WITNESSES:
C. E. Cuffey
Perry B. Turpin

INVENTOR
GEORGE KETCHUM
BY *Munn & Co.*
ATTORNEYS

No. 799,470.

PATENTED SEPT. 12, 1905.

G. KETCHUM.
RETORT.

APPLICATION FILED MAR. 18, 1905.

2 SHEETS—SHEET 2.

Fig. 4

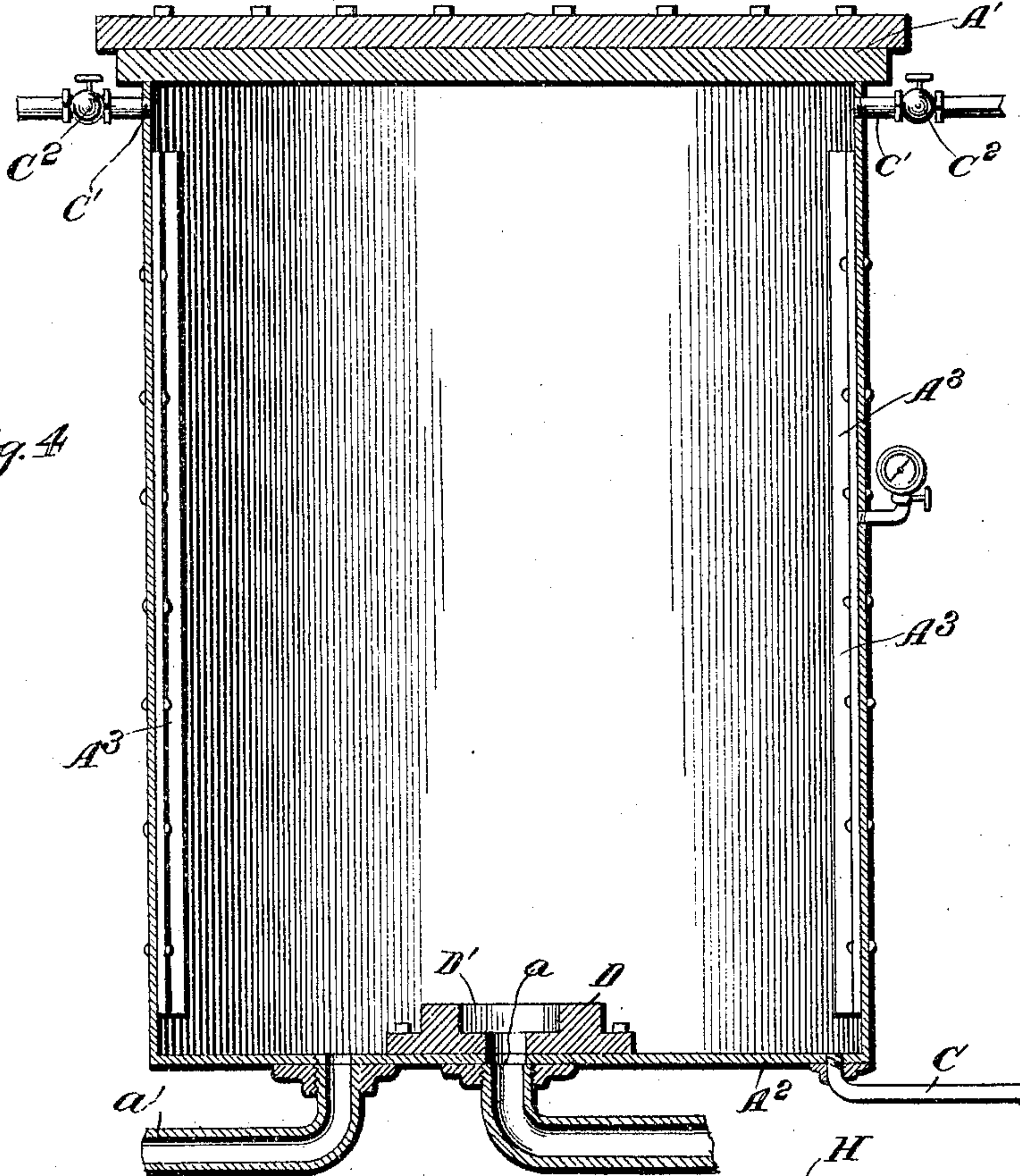
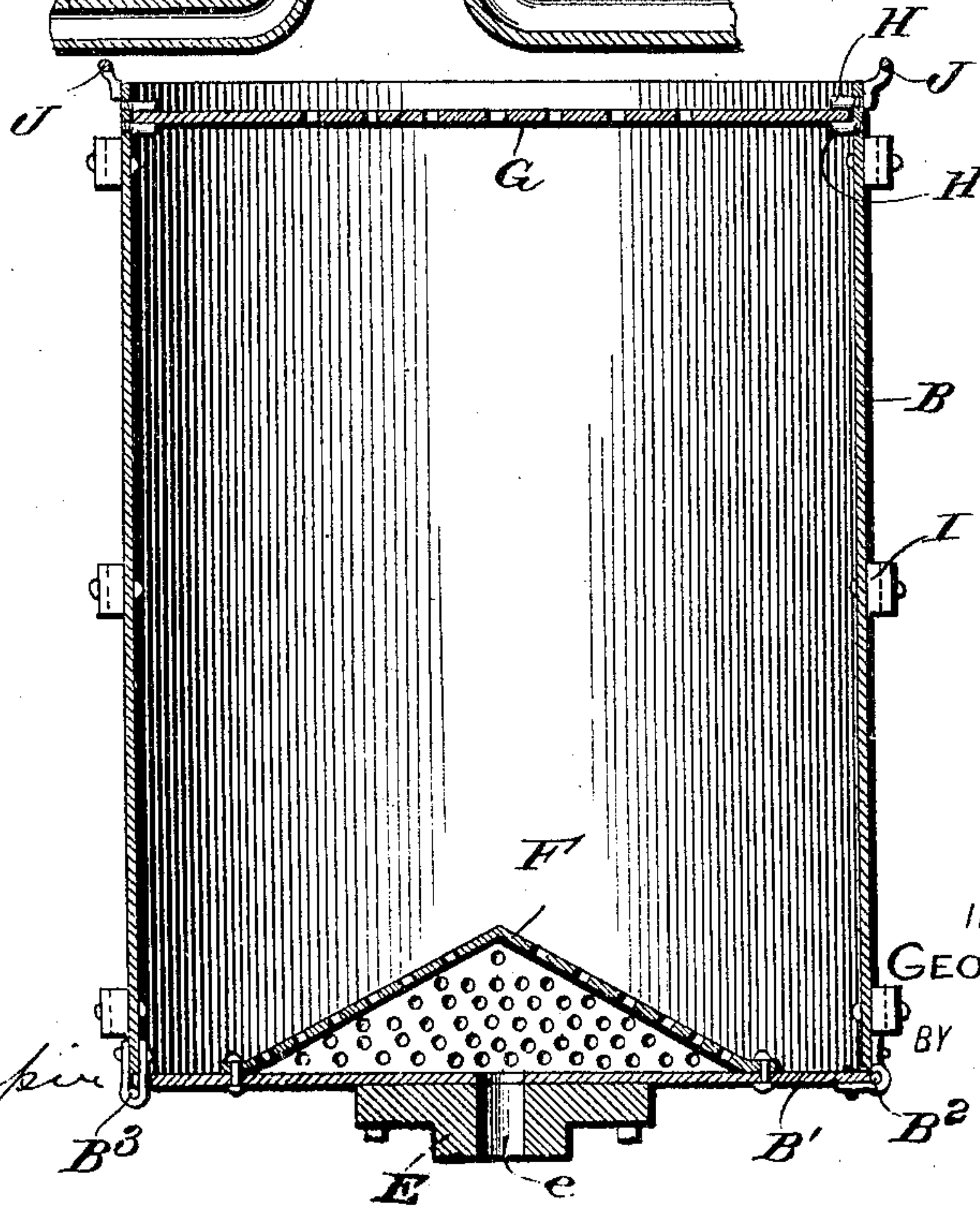


Fig. 5



WITNESSES:

C. E. Huffy
Per B. Lurpin

INVENTOR

GEORGE KETCHUM

BY *Munn & Co.*

ATTORNEYS

UNITED STATES PATENT OFFICE.

GEORGE KETCHUM, OF CUTLER, GEORGIA.

RETORT.

No. 799,470.

Specification of Letters Patent.

Patented Sept. 12, 1905.

Application filed March 18, 1905. Serial No. 250,748.

To all whom it may concern:

Be it known that I, GEORGE KETCHUM, a citizen of the United States, and a resident of Cutler, in the county of Charlton and State of Georgia, have made certain new and useful Improvements in Retorts, of which the following is a specification.

My invention is an improvement in retorts intended for use in the distillation of turpentine and other products; and the invention consists in certain novel constructions and combinations of parts, as will be hereinafter described and claimed.

In the drawings, Figure 1 is a vertical longitudinal section of a retort embodying my invention. Fig. 2 is a detail plan view illustrating the means for securing the top plate of the inner shell in place. Fig. 3 is a detail cross-section on about line 3 3 of Fig. 1. Fig. 4 is a vertical longitudinal section of the outer casing, and Fig. 5 is a detail longitudinal section of the inner shell.

As shown, the retort comprises an outer casing A and an inner shell B. The outer casing is provided with a top A', a bottom A², and has its sides provided on their inner faces with the upright guides A³, which are preferably provided by means of the angle-bars, having their outer wings a³ riveted or otherwise secured within the casing A and their guide-wings A³ projecting radially into the casing to form rails on which the inner shell B may slide into and out of the outer casing when the lid or cover A' of the latter is removed. I provide the outer casing with a main inlet a at the center of its bottom A², and I also provide said bottom with an inlet C, by which steam or other vapor may be supplied to the retort for the purpose of heating the same up to any desired degree before the process of distillation begins. Outlets C', suitably valved at C², may be provided for the discharge of such heating-up steam when desired. I also provide the outer casing with a main outlet or discharge a', which may open in its bottom, as shown in Figs. 1 and 4 of the drawings.

Within the outer casing A, surrounding the main inlet a, I provide a step-bearing D, socketed at D' to receive a nozzle or nipple E on the under side of the inner shell, such nipple E and the step D being faced off, making a practically steam-tight connection between the parts when the inner shell is fitted within the outer casing, as shown in Fig. 1 of the drawings. This inner shell has its

bottom B' arranged to open when removed from the outer casing, being preferably hinged at B² and provided with a hasp and staple B³ or other suitable fastening at its other edge, so it may be held closed whenever desired. On its bottom surrounding the opening e, leading through the nipple E, I provide a perforated steam-distributing cone F, which projects upwardly into the inner shell and operates to distribute the steam fed through the opening e to the contents of the inner shell.

The top G of the shell B is held detachably in place, being preferably provided with the edge notches G', which permit the application of the top plate G past the upper pins H and then the turning of said plate G so the slot G' will be out of register with the lower pin H' in order to secure the cover or lid G in place. It will be noticed that the inner shell is practically a cylinder open at both ends with the bottom arranged to close the lower end of the shell and the top plate to close the upper end of the shell when the parts are assembled, as shown in Fig. 1 of the drawings. The inner shell is provided on its outer side with blocks I, grooved vertically at I' to receive the inwardly-projecting wings A³ of the guide-rails, so the shell will slide into and out of position in the outer casing, the blocks also spacing the shell away from the outer casing, as shown in the drawings. It may be desirable to provide the inner shell at its upper end with handles J to facilitate its removal from the outer casing whenever desired.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A retort comprising an outer casing having its bottom provided with an inlet and having, surrounding the same within the casing, a step-bearing socketed for a nipple on an inner shell, upright guide-rails within the outer casing, an inner shell comprising a cylindrical body provided on its outer side with blocks grooved to slide on the guide-rails of the casing and having a removable perforated cover-plate at its upper end, a bottom plate hinged at one edge to the shell at the bottom thereof, a fastening for the other edge of the bottom plate, a depending nozzle or nipple on the under side of the bottom plate and fitting the step of the outer casing and a perforated steam-distributing cone centrally upon the hinged bottom and projecting within the shell, substantially as set forth.

2. The combination in a retort, of the outer casing having a bottom plate provided with a step-bearing and an inlet-opening communicating therewith, and the inner shell within
5 the outer casing and having a hinged bottom plate provided on its under side with a depending nipple fitting the step-bearing of the casing and having an opening communicating with the inlet-opening therein.
- 10 3. A retort comprising an outer casing, upright guides therein, a step-bearing within the casing at the bottom thereof, an inner shell

having means engaging with the guides of the outer casing and a bottom plate provided with a depending nipple fitting the step-bearing of
15 the casing and a perforated distributing-cone on the bottom of the shell and projecting upwardly within the latter, substantially as set forth.

GEORGE KETCHUM.

Witnesses:

G. E. POLLARD,
S. A. CROSS.