

C. B. STILWELL.
Urn for Coffee.

No. 225,731.

Patented Mar. 23, 1880.

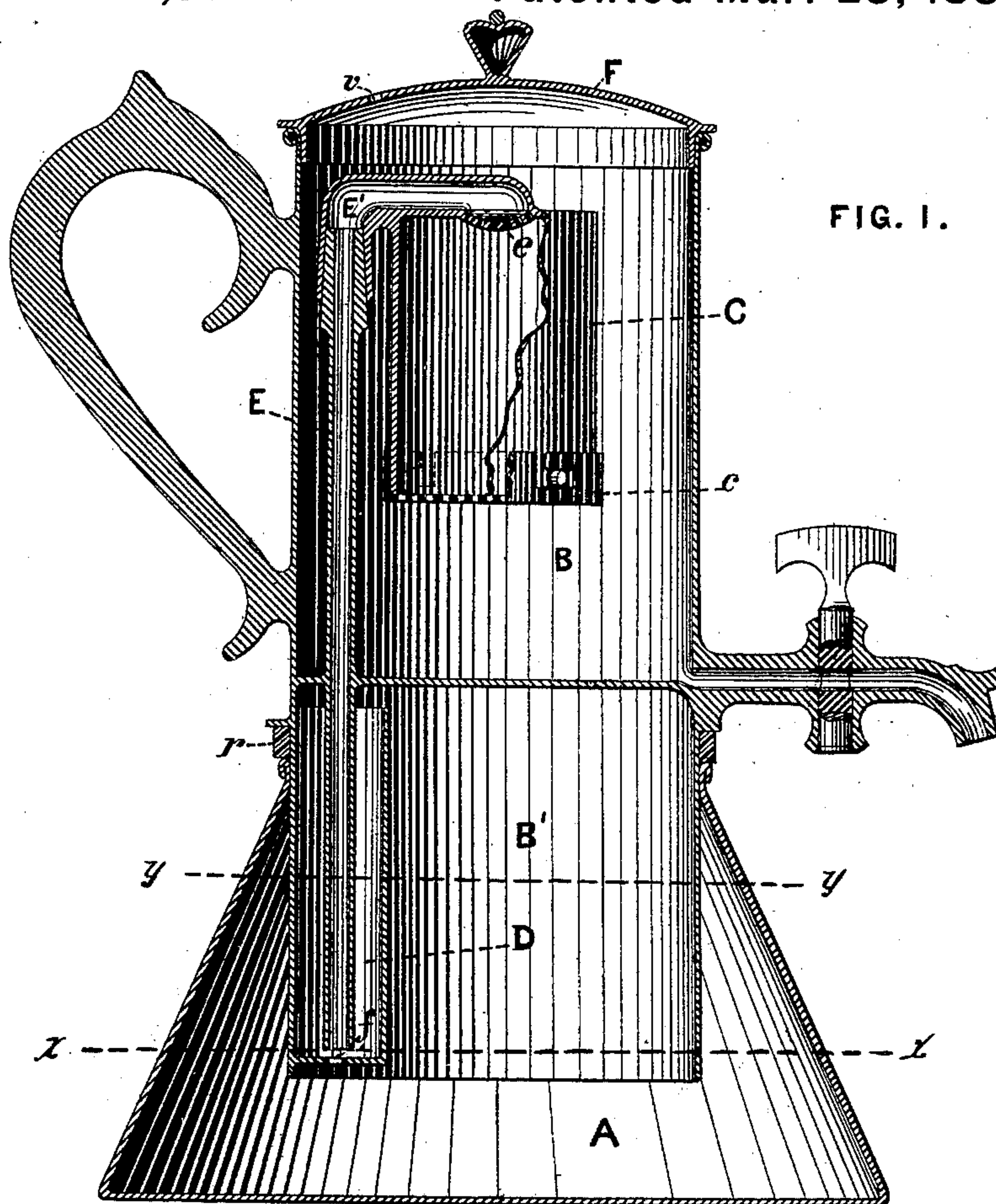
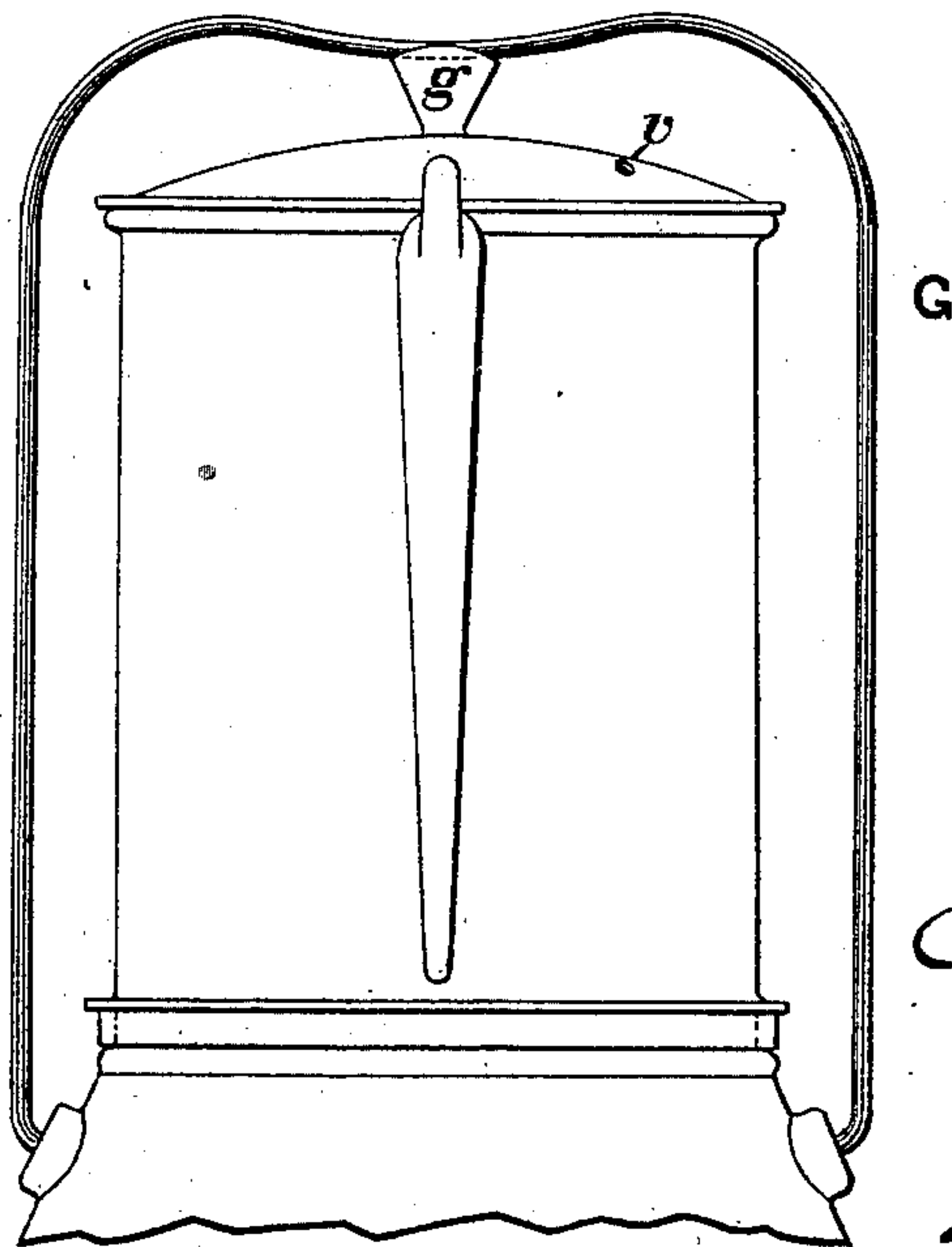


FIG. 1.

FIG. 2.



WITNESSES.

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UNITED STATES PATENT OFFICE.

CHARLES B. STILWELL, OF WORCESTER, MASS., ASSIGNOR OF ONE-HALF
OF HIS RIGHT TO EDWIN J. HOWLETT, OF PHILADELPHIA, PA.

URN FOR COFFEE.

SPECIFICATION forming part of Letters Patent No. 225,731, dated March 23, 1880.

Application filed November 15, 1879.

To all whom it may concern:

Be it known that I, CHARLES B. STILWELL, of the city and county of Worcester, in the State of Massachusetts, have invented certain new and useful Improvements in Urns for Distilling Coffee, Tea, and the like, of which the following is a full, clear, and true description, reference being had to the accompanying drawings, forming part hereof, in which—

Figure 1 is a central sectional elevation of an urn embodying my invention; Fig. 2, a detail, in elevation, of the bail and cover-button.

Similar letters of reference indicate corresponding parts wherever used.

My invention relates to the class of coffee pots, urns, or boilers in which the coffee-berry is placed within a receptacle provided with a perforated bottom, and so relatively arranged with regard to a boiler that boiling water and steam are caused to be forced through said receptacle, and to percolate through its contained berry, so as to extract the essence from the berry, and cause it to fall into a chamber below the receptacle in the form of what is known as "drip-coffee."

The object of my invention is to secure the full strength and flavor of the berry, and to further insure a better quality of drip-coffee than is possible by the use of other apparatus.

My apparatus, hereinafter described, is so constructed that boiling water and steam are forced under pressure through the berry.

Referring to the drawings, the following is a convenient form of apparatus embodying my invention:

A is a water-tight compartment or boiler, in the form of an open and hollow truncated cone, of any convenient proportion and dimensions, and preferably made of sheet-tin.

B is a cylindrical receiver or coffee-pot proper, provided with a suitable handle and a drawing-off faucet at its base.

B' is an open-bottomed cylindrical extension, projecting downward from the bottom of the receiver B, and of exterior diameter sufficient to enable it to fit closely within the open mouth of the boiler A. A steam-tight joint between the two is effected by means of the rubber or other similar packing *r*.

C is a container, concentrically supported

near the top of the receiver B, and adapted to contain the berry. It is provided with a perforated removable base, *c*, through which the juices, &c., which go to form the drip-coffee percolate into the receiver.

The base is removably secured by any well-known and convenient lock or clutch.

The container C is removably supported upon an upright pipe, E, by an angle cap-pipe, E', secured to the container, opening centrally into it and fitting over the upper extremity of the pipe E.

F is the receiver-cover, fitting closely upon the receiver. It is provided with a vent-hole, *v*, for the escape of overpressures of steam.

The pipe E passes through the bottom of the receiver B, and extends down to within a short distance of the open end of the extension B', passing through and opening within a small upright cylinder, D, secured within the extension B'.

The interior diameter of the pipe E is greater than that of an orifice, *f*, in the closed bottom of the cylinder D.

G is a bail attached to the receiver, and adapted by its elasticity to retain the lid against any ordinary pressure from within. The bail is so shaped as to spring into a notched button, *g*, on the lid.

In the container C, and beneath the opening of the cap-pipe E', is a strainer or sprayer, *e*.

Such being the construction of my apparatus, the following is its mode of operation: The boiler A is filled with water up to any desired level—for instance, that indicated by line *yy* in the drawings—and any suitable quantity of coffee or other berry is placed in the container. The receiver is then placed in position on the boiler, the cover applied to the former and secured by the bail, and the entire urn placed upon the fire until the water is caused to boil. The steam generated, being confined by the rubber packing, forces the water, which has found its level, through the orifice *f* in the cylinder D, from and out of said cylinder D, up through the tube E and through the sprayer *e* into the container and onto the coffee. With the water steam is likewise forced up.

The above action is continuous, inasmuch as the water in the boiler, as gradually dis-

placed and still seeking its level, continues to flow through the orifice *f* into the cylinder D, and rises above the bottom extremity of the pipe E, and inasmuch as the steam, entering the cylinder D at the top, forces the water up the tube E as fast as the water in the cylinder rises above the level of the tube. The action is likewise governed and regulated so as to admit steam also to the pipe by the relative proportions of the orifice and tube, the orifice being of less diameter than the tube.

From the above-described action it ensues that water, in the form of boiling spray admixed with steam, is fed to the berry in the container, through which it percolates into the receiver B. This action continues until all the water above the line *xx* in the drawings—that is to say, all above the bottom of the tube E—has been forced through the coffee-berry, carrying down with it all the essence of the berry, in the form of drip-coffee, into the receiver, whence it can be drawn off as desired. The balance of the boiling water in the boiler serves to hold the liquid coffee in the receiver in a properly-heated condition.

The advantages of my apparatus are, that it furnishes the best conditions for freeing the juices from the berry, an admixture of steam with boiling water in form of spray being forced through the berry; that the container C, being suspended in the receiver B, and having its only opening into the receiver, insures that no juices are lost, but that all the essence of the berry is caught and carried into the receiver by the gravity of the water. By the arrangement, also, of the receiver over the boiler the coffee-liquor cannot be itself boiled, whereby the essence might be freed or changed in nature. It follows, therefore, that the liquor remains fresh for a great length of time.

The amount of liquor in the boiler above the line *xx* and the amount of coffee-berry in the container can be so proportioned as to insure any given resultant quantity of coffee-liquor desired of any uniform strength.

My apparatus, moreover, enables the safe use of steam under pressure, which use is desirable in the extraction of the essence to the best effect, safety being secured by the free outlet of the steam from the boiler by means of the tube E and the vent-hole *v* in the cover. In case of accidental stoppage of the tube E the receiver B becomes a large safety-valve to the boiler through the elasticity of the bail.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. In combination with the boiler A, the cylinder D, provided with the orifice *f*, and located below the receiver B in the extension B', and the tube E, connected with the receiver.

2. In combination with the pipe E, the cylinder D, provided at its base with the orifice *f*, said cylinder D being located within the extension B', substantially in the manner and for the purpose set forth.

3. The combination, to form an urn for distilling coffee and the like, of the boiler A, cylinder D, provided at its lower end with the orifice *f*, extension B', pipe E, container C, and receiver B, the whole combined, constructed, and operating substantially in the manner set forth.

In testimony whereof I have hereunto signed my name this 9th day of October, 1879.

CHAS. B. STILWELL.

In presence of—

H. A. BROCKWAY,
B. D. ADSIT.