

(No Model.)

3 Sheets—Sheet 1.

J. CHILDS.

APPARATUS FOR MAKING TEA, COFFEE, &c.

No. 514,988.

Patented Feb. 20, 1894.

Fig. 1.

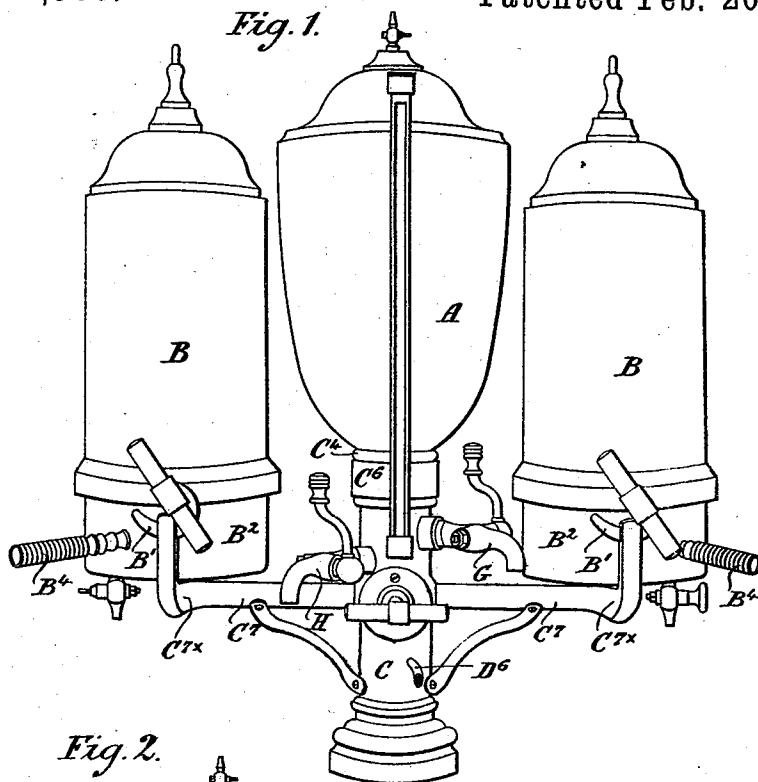


Fig. 2.

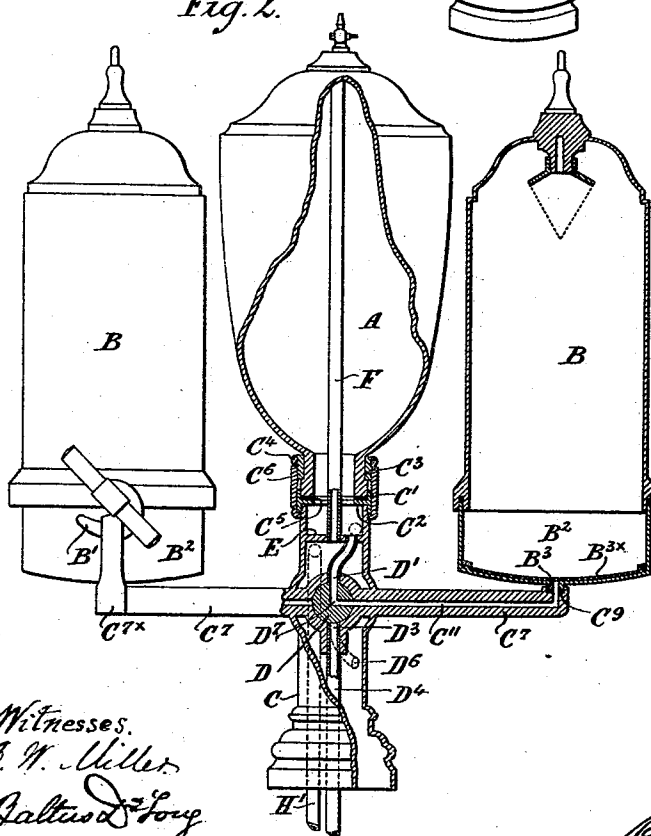
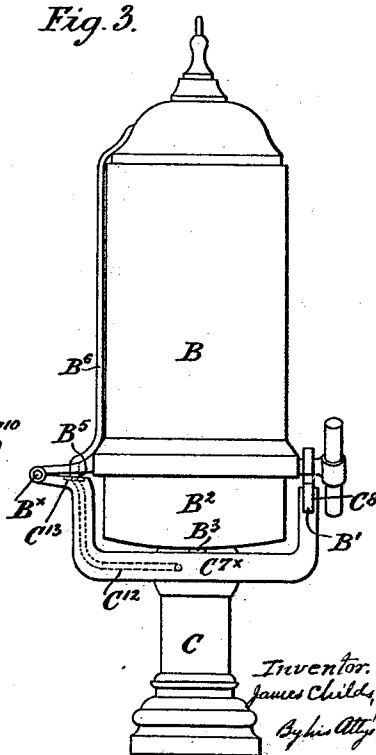


Fig. 3.



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Baldwin & Long

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(No Model.)

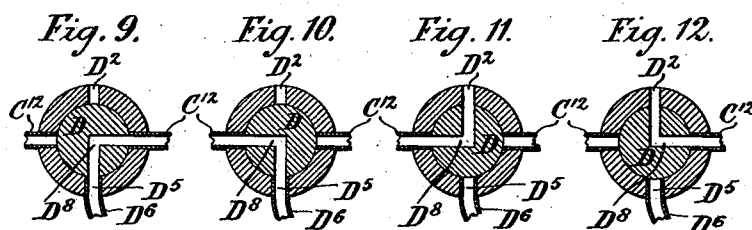
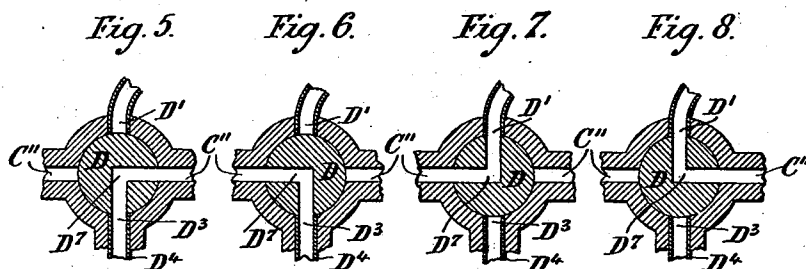
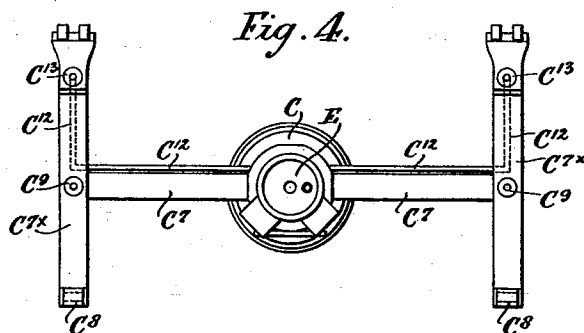
3 Sheets—Sheet 2.

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Fig. 13.

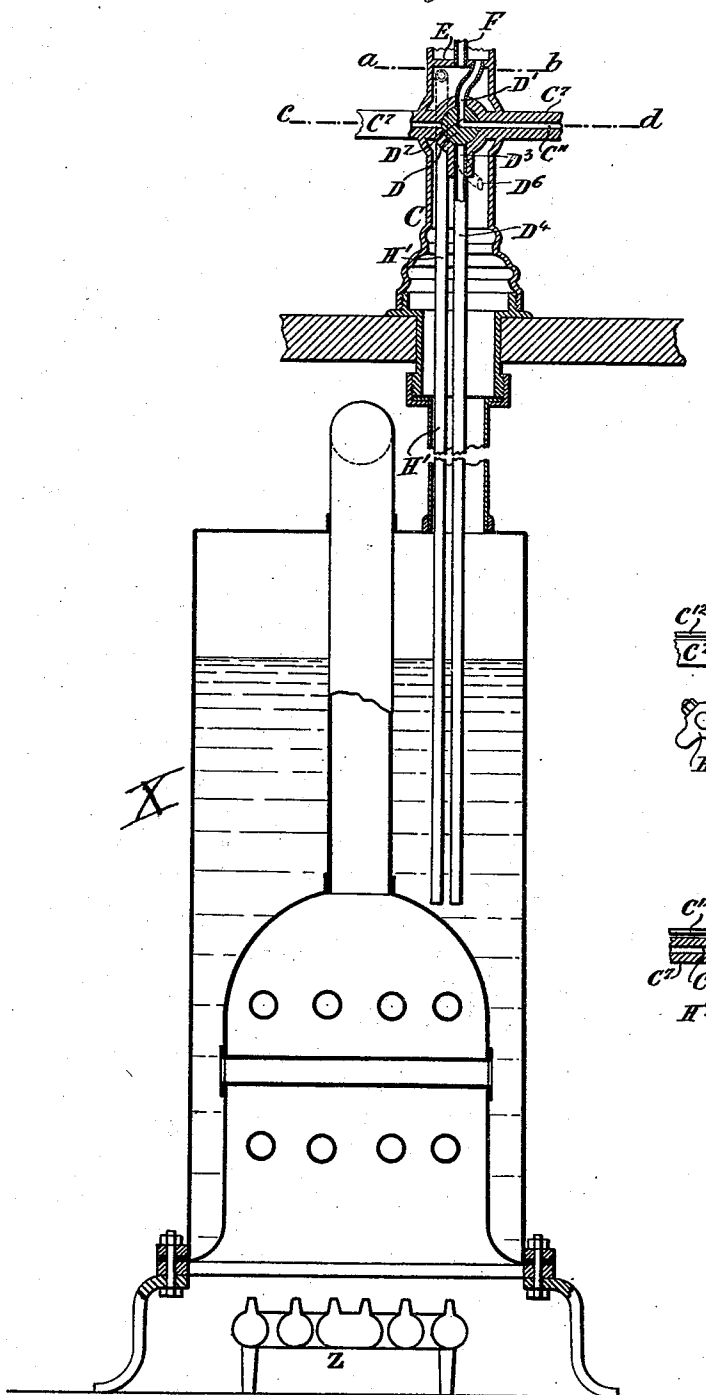


Fig. 14.

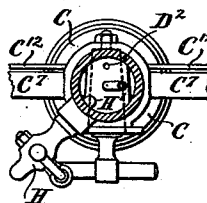
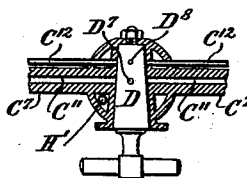


Fig. 15.



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UNITED STATES PATENT OFFICE.

JAMES CHILDS, OF LONDON, ENGLAND.

APPARATUS FOR MAKING TEA, COFFEE, &c.

SPECIFICATION forming part of Letters Patent No. 514,988, dated February 20, 1894.

Application filed September 25, 1893. Serial No. 486,389. (No model.) Patented in England September 12, 1890, No. 14,405, and in Italy December 31, 1891, LXI, 271.

To all whom it may concern:

Be it known that I, JAMES CHILDS, a subject of the Queen of Great Britain, residing at Heatheroft, Putney Hill, London, in the county of Surrey, England, have invented certain new and useful Improvements in Apparatus for Making Coffee, Tea, and other Infusions, (for which I have received Letters Patent in Great Britain, No. 14,405, dated September 12, 1890; in France Patent of Addition No. 200,553, dated June 17, 1891, and in Italy Letters Patent LXI, 271, dated December 31, 1891,) of which the following is a specification.

This invention has for its object improvements in apparatus for making coffee, tea and other infusions. The apparatus is similar in some respects to that described in a previous patent granted to me, No. 423,127, but according to my present invention I so form the apparatus that when an infusion has been made in a closed vessel as described in my former patent the infusion can be forced from that vessel into a closed storage vessel from which it can be drawn off as required and also in such a manner that by turning the plug of one tap into various positions either boiling water can be admitted to the bottom of the infusion making vessel and air allowed to escape from it at the top or in another position the supply of boiling water and escape of air can be cut off or in a third position steam under light pressure can be admitted to the top of the infusion making vessel and the infusion thereby forced out into the storage vessel. Thus each time that infusion is made it can be made in comparatively large quantity and afterward drawn off and kept stored in a storage vessel ready for use without exposure to the air by which aroma might be lost.

In the drawings annexed Figure 1 is a front view in perspective of an apparatus constructed according to my invention. Fig. 2 is a front view partly in section. Fig. 3 is an end view. Fig. 4 is a plan view of the standard by which the storage and infusion making vessels are carried. Figs. 5, 6, 7 and 8 are cross sections of the tap—taken on the line 1, 1, Fig. 4 and showing the plug of the tap in four different positions. Figs. 9, 10, 11 and 12 are similar cross sections taken through the line 2, 2, Fig. 4. Fig. 13 is a vertical sec-

tion showing the pedestal of the apparatus, and the hot water and steam connections with a steam boiler. Fig. 14 is a cross section of the pedestal through the line *a-b* of Fig. 13, 55 and Fig. 15 is a cross section on the line *c-d* of Fig. 13.

A is a storage vessel.

B B are two infusion vessels one on either side of it—the storage vessel can be supplied 60 with infusion from either one or the other as desired. For smaller apparatus one infusion apparatus only might be provided for supplying the storage vessel.

C is a standard by which the vessels are 65 carried.

D is a tap within the standard—above it the passage through the standard is closed by a disk E. The interior of the lower part of the standard below this disk is kept supplied 70 with steam under light pressure from a steam boiler X. This boiler is heated by a gas burner Z, placed below it, as described in a former patent granted to myself and C. J. Jones, No. 409,260, dated August 20, 1889. 75

The storage vessel A is secured to the top of the standard. In the drawings its lower end is shown to be of such a form that it may be made of earthenware—the interior of the vessel is also shown to be kept heated by a 80 steam pipe F rising up through it as described in an application for patent lodged by me and by C. J. Jones on September 5, 1893.

In Fig. 2 the storage vessel is shown to be secured to the top of the standard in the following manner but other ways of securing it to the standard might be adapted. On to the top of the standard is screwed a ring C' having an inwardly projecting flange C². The lower end of the storage vessel is embraced 90 by a ring C³ which has a screw thread cut around its exterior. The ring is divided across into two halves. These when put together around the lower end of the storage vessel are held to it by a ring C⁴ screwed on to them. 95 The lower end of the storage vessel is made to rest on a washer C⁵ placed on the flange C² and a ring C⁶ which loosely surrounds the ring C' and has a screw thread cut around the interior of its upper part is screwed on to 100 the ring C³. A collar on the lower end of the ring C⁶ coming against the bottom of the ring

C' prevents the ring C⁶ from rising and so the storage vessel is drawn down tightly on to the washer. The standard C has two arms C⁷ extending from it. These carry the infusion vessels B. Each arm at its end has two horizontal branches C^{7x} extending from it at right angles in opposite directions. These are bent upward at right angles as shown in Fig. 3 and to one of them is hinge jointed at B^x the vessel B. The other has an eye C⁸ formed through it into which a curved catch B' which is jointed to the opposite side of this vessel can be turned as shown at Fig. 2.

The bottom of each infusion vessel B is formed of a cup B² which has a small tubular projection B³ extending downward from its center. This rests on an elastic washer C⁹ which lies in a recess in the arm C⁷. An elastic washer C¹⁰ contained in an annular recess at the bottom of the upper part of the vessel B fits down on to the upper edge of the cup B². Each cup B² has within it a finely perforated false bottom B^{3x} over which may be placed a filtering mat of swansdown or other suitable material. Projecting from the exterior of each cup is also a handle B⁴ as shown in Fig. 1 by which if the catch B' is released and the upper part of the vessel B turned to one side on the hinge joint B^x the cup may be taken away from the spent coffee or other material to be removed from it and fresh material put in its place. Each arm C⁷ has a passage C¹¹ formed through it which at one end extends through the washer C⁹ and at the other through the shell of the tap D. Through this passage either boiling water is supplied to the vessel B or infusion is passed from B to the storage vessel A. Alongside of each arm C⁷ is a small pipe C¹² communicating at one end with an opening in the shell of the tap and at the other end with an opening through a washer C¹³ which lies in a recess in the upper surface of the branch arm C^{7x} to which the upper part of the vessel B is hinge jointed. A small nipple B⁵ projecting downward from the upper part of the vessel B rests on this washer and from it a small pipe B⁶ is led upward to the top of the interior of the vessel B where it has a small cage of wire gauze secured to its end as shown in Fig. 2 to guard against any solid matters entering the pipe. Through the pipe air can either be allowed to pass from the interior of the vessel B or steam can be admitted to it.

Through the top of the outer shell of the tap D two openings D' D² are formed, from one marked D' a pipe is led through the disk E and so to the interior of the storage vessel—the other marked D² is left open to the interior of the standard C which is filled with steam. The under side of the shell of the tap has also an opening D³ formed through it from which a pipe D⁴ is carried down to below the surface of the water in the steam boiler. From another opening D⁵ in the under side of the shell of the tap a small pipe

D⁶ is led through the side of the standard as shown in Fig. 1 and indicated by dotted lines in Fig. 2. The plug of the tap has formed in it two right angled passages D⁷ D⁸. When the plug of the tap is turned into such a position that these passages are in the positions shown in Figs. 5 and 9—boiling water will pass from the steam boiler to the bottom of the right hand vessel B and air will escape through the pipe D⁶ from the top of the vessel—when it is turned into the position shown in Figs. 6 and 10 boiling water will pass to the left hand vessel and air will pass from this vessel through the pipe D⁶. When turned into the position shown in Figs. 7 and 11 steam will be admitted to the top of the left hand vessel B and liquid will pass from the bottom of this vessel to the storage vessel A. When turned into the position shown in Figs. 8 and 12 steam will be admitted to the top of the right hand vessel B and liquid will pass from this vessel to the storage vessel.

G is a tap on an outlet passage at the side of the upper part of the standard C—by it liquid can be drawn off from the storage vessel whenever desired.

H is another tap standing out from the side of the standard C. It is supplied with boiling water through a pipe H' which descends to below the surface of the water in the boiler.

What I claim is—

1. The combination of a storage vessel A a closed infusion vessel B with perforated false bottom—a tap D—two passages through the shell of the tap one kept supplied with steam and the other with boiling water under light pressure—other passages between the tap and the vessels A and B so disposed that in one position of the plug of the tap boiling water will pass to the vessel B and air escape from it at the top, while in another position steam will pass to the top of the vessel B and infusion be forced out from it at the bottom to the storage vessel A.

2. The combination of a pedestal—a storage vessel carried by it—an arm extending from the pedestal a closed infusion vessel B carried by the arm—a removable bottom to the vessel B, a tap carried by the pedestal two passages through the shell of the tap one kept supplied with steam and the other with boiling water under light pressure, a passage from the tap to the storage vessel A—a passage along the arm from the tap to the removable bottom and another passage to the top of the vessel B.

3. The combination of a pedestal—a storage vessel A carried by it—an arm extending from the pedestal branched at the end, an infusion vessel B hinged at one side to one branch and on the opposite side secured to the other branch by a movable catch—the removable bottom of the vessel B fitted with a perforated false bottom and held between the arm and the bottom edge of the sides of this vessel—a tap carried by the pedestal two passages through the shell of the

tap one kept supplied with steam and the other with boiling water under light pressure—a passage from the tap to the storage vessel A—a passage along the arm from the tap to the removable bottom and another passage to the top of the vessel B.

4. The combination of a pedestal—a storage vessel A carried by it, two arms extending from opposite sides of the pedestal each branched at the end—a closed infusion vessel B hinged at one side to one branch and on the opposite side secured to the other branch by a removable catch—the removable bottom of each vessel B fitted with a perfo-

rated false bottom and held between the bottom edge of the sides of the vessel B and the arm that carries this vessel a tap carried by the pedestal two passages through the shell of the tap one kept supplied with steam and the other with boiling water under light pressure, a passage from the tap to the storage vessel other passages along the arms to the removable bottoms of the infusion vessels B and other passages to the top of these vessels.

JAMES CHILDS.

Witnesses:

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