

(No Model.)

T. MILLER.  
URN.

No. 534,566.

Patented Feb. 19, 1895.

Fig. 1.

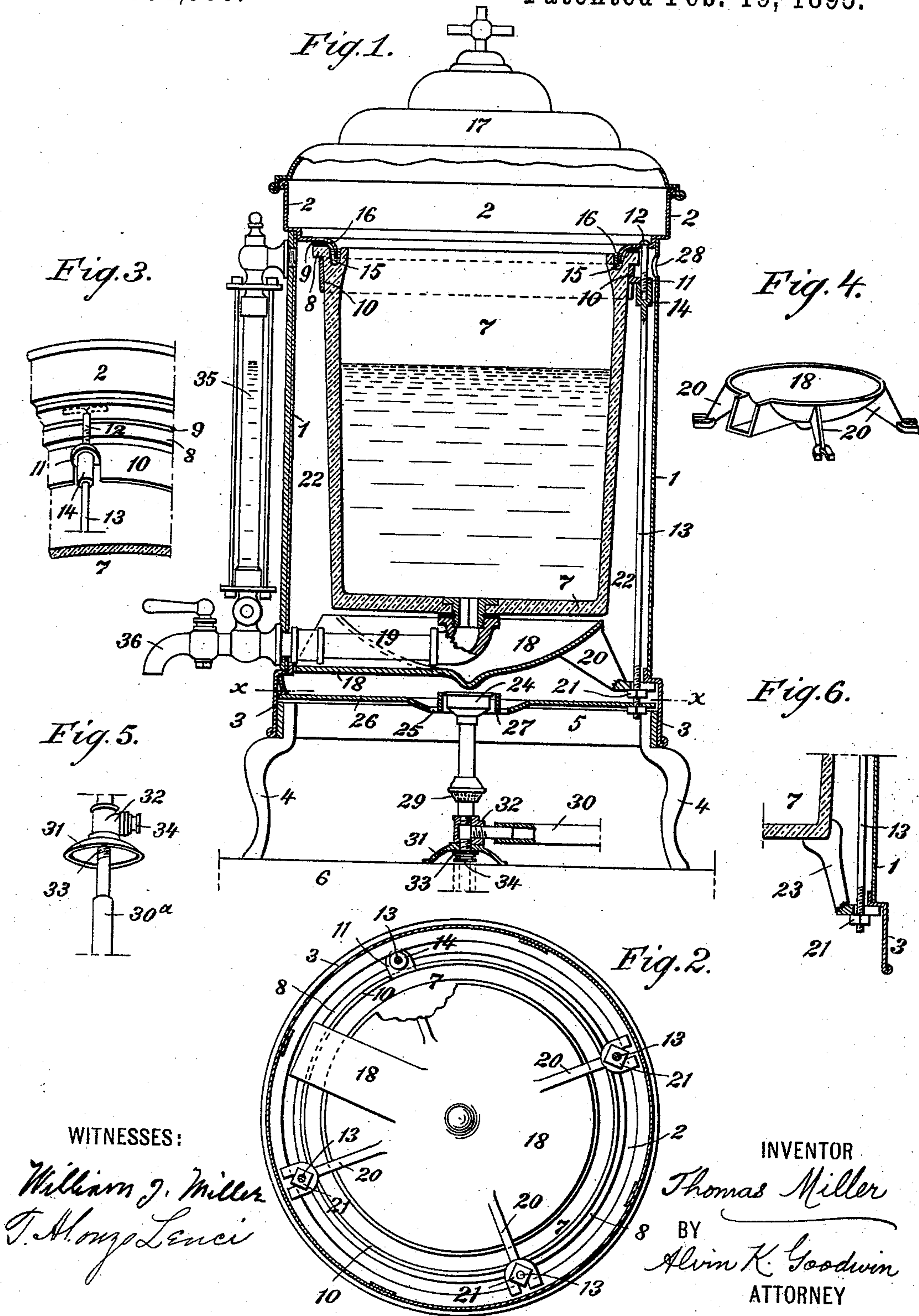
Fig. 3.

Fig. 4.

Fig. 6.

Fig. 5.

Fig. 2.



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# UNITED STATES PATENT OFFICE.

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## URN.

SPECIFICATION forming part of Letters Patent No. 534,566, dated February 19, 1895.

Application filed May 19, 1894. \*Serial No. 511,842. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS MILLER, a citizen of the United States, residing at Jersey City, Hudson county, State of New Jersey, have invented certain new and useful Improvements in Urns, of which the following is a specification.

My present invention is an improvement upon the coffee, tea or water urns shown in my prior United States Patents Nos. 477,261, 486,881, and 488,320, and has for its principal object to provide for the safe employment of a readily removable or renewable earthenware crock or liquid holding vessel within the outer casing, while at the same time lessening the number of parts, reducing the cost of manufacture and assuring increased convenience in the use of urns embodying all the most desirable features of construction.

The invention will first be described and then will be defined in claims hereinafter set forth.

Reference is to be had to the accompanying drawings, forming part of this specification, and in which similar numerals indicate corresponding parts in the several views.

Figure 1, is a central vertical sectional elevation of my improved urn. Fig. 2, is a bottom plan view thereof, in horizontal section on the line  $x, x$ , in Fig. 1, and partly broken away. Fig. 3, is a detail perspective view of the crock clamp ring or collar and bolt and adjacent parts. Fig. 4, is a perspective view of the heat deflector. Fig. 5, is a bottom partial perspective view of the gas burner used for heating the urn; and Fig. 6, is a detail vertical section showing a modification.

The outer casing or body of the urn comprises a central shell portion 1, a headpiece 2, and a base-piece 3; the parts, 2, 3, having rabbets or shoulders on or at which the ends of the shell rest. Suitable legs 4, preferably fixed to a removable ring 5, sustain the urn at proper height from a table, shelf or other support 6. The crock or liquid holding vessel 7, which is preferably made of earthenware, has an upper outwardly projecting flange or rim 8, between which and a horizontal portion of the headpiece 2, a suitable packing 9, is or may be placed.

Beneath the crock flange 8, is located a ring or collar 10, which conforms generally to the

shape of the crock and has suitable projections or lugs 11, one for each of the two-part clamp bolts 12, 13, which sustain the crock within the casing. The lug 11, may be cast or formed on, or may be attached to, the ring 10, in any manner, provided it makes an abutment for the top interiorly threaded nut portion 14, of the lower longer part 13, of the bolt, while the upper shorter screw-threaded part 12, of the bolt which passes through an aperture of the lug 11 is engaged by the nut 14, thereby clamping the crock rim 8, and binding the crock and headpiece (with or without the packing 9) securely together. The upper end of the bolt part 12, is preferably split and bent down and soldered fast to the headpiece. I prefer to use a wrought iron ring or collar 10, and to produce the abutment lugs 11, thereon by slitting the collar upward from the lower edge and then bending outward the metal between the slits. See Figs. 1 and 3, of the drawings.

Whether the packing 9, be used or not, I provide a water seal or trap at the joint between the crock 7, and the casing headpiece 2. This is done by forming a groove or gutter 15, in and around the top of the crock and extending the metal of the headpiece downward at 16, within said groove, thereby causing water of condensation which drips from the urn cover, 17, to collect in the groove and form the water seal, as shown in Fig. 1, of the drawings.

The heat deflector and guard 18, located below the crock 7, protects the crock and its laterally ranging fluid outlet 19, from overheating by preventing direct impact therewith of flame or high heat from the burner below, thus promoting the even heating of the entire liquid contents of the crock, and in substantially the same manner set forth in my two first above named patents. The improvement in this part of my invention consists in dispensing with the separate clamps formerly used to sustain the crock, and in using the main crock holding bolts to support the deflector. I accomplish this by providing the deflector with three or more laterally projecting lugs 20, having slotted or bored extremities, through which the lower threaded ends of the parts 13, of the crock bolts pass, and whereby when the nut 21, is tightened on the



bolt below the lug 20, the latter will be drawn upward tightly to and beneath a horizontal shoulder or portion of the basepiece 3, while at the same time clamping the shell 1, of the casing securely between the end parts 2, 3, thereof.

To assemble the main parts of the urn, the uncovered headpiece 2, is inverted. The packing 9, if used, is then laid on the headpiece. The crock is then laid on the packing. The clamp ring or collar 10, is then laid on the crock rim or flange 8, with the bolt parts 12, projecting above the collar lugs 11. The parts 13, of the bolts are then screwed at 14, upon the bolt parts 12, and tightly to the lugs 11. After the liquid outlet pipe 19, is adjusted to the crock, the casing shell 1, is laid on the headpiece 2. The basepiece 3, is then laid on the shell. The deflector is then adjusted with its lug openings admitting the bolt ends 13, and the nuts 21, are then screwed onto the bolts and tightly to the deflector lugs 20, to bind the parts together.

The deflector 18, may at any time be removed without disturbing the crock 7, and to allow cleaning of interior surfaces exposed to the heat of the burner, by simply removing the bolt nuts 21, but to remove the crock itself, the parts 13, of the clamp bolts will be unscrewed at 14, after the deflector is removed and the crock may then be lifted out of the casing, with the ring or collar 10, thus allowing a cracked or broken crock to be readily replaced by a new one without impairing the usefulness or the neat finish of any other portion of the urn. The outlet pipe 19, must of course be readjusted when renewing the crock.

In my earlier patents, the metallic liquid vessel is sustained partly from the casing headpiece by nuts of clamp bolts, which engage beneath the out-turned bead or flange of the vessel. While these nuts and bolts may safely help sustain a metallic liquid vessel within the casing, it is obvious that said bolt nuts would make an insecure sole support for an earthenware crock by clamping effect beneath the brittle edge of its flange 8. Hence the surrounding ring or collar 10, sustaining the crock all around its flange is preferable as it makes, in connection with the clamping action of the bolts 12, 13, on the casing and collar, a perfectly safe and reliable fastening and support for the crock from its top flange alone. Furthermore, the clamping action of the bolts at or upon the joint between the casing headpiece and the crock, through the medium of the encircling collar 10, and by the aid of the water seal at 15, 16, (and with or without the packing 9,) always effects a tight connection of the crock and casing which prevents escape of steam from the crock or its cover into the hot air space 22, between the crock and casing, thereby avoiding disagreeable drip of condensed steam or fluid upon the table on which the crock rests; and also preventing inward pas-

sage of deleterious gases or products of combustion from said hot air space to the interior of the crock, thereby preserving the purity of the liquid contents of the crock.

The comparatively short parts 12, of the clamp bolts are expanded so little by the heat rising from the burner, that the joint between the crock and headpiece 2, is not loosened, and the expansion of the larger parts 13 of the bolts accommodates the expansion of the casing while permitting said parts 13, to always give ample support to the deflector 18, below the crock. In this preferred construction the crock 7, is sustained solely from its upper flange, aided a little by the pipe outlet 19. Hence the crock is free to expand or contract more or less than the metallic portions of the urn, thus promoting durability of the entire structure.

In the modification shown in Fig. 6, of the drawings, the deflector 18, is not used and suitable clamps 23, through which the bolts 13 pass, are interposed between the bottom of the crock and the basepiece of the casing.

The flame head 24, of the burner, is passed upward through the preferably rounded opening 25, of a bottom guard plate 26, held within the basepiece 3, by the leg frame 4, 5, or otherwise. This plate 26, prevents downward escape of heat and by its opening 25, admits proper volume of atmospheric air past the burner flame which heats the air prior to its rising through the space 22, for heating the crock of the urn. I now provide the plate 26, as its air inlet opening 25, with a metal frame or guide 27, preferably made rectangular and of proper size to admit and retain within it the head of the burner and cause the latter to always be centered relatively to the opening 25, to assure inward passage of the air in even volume all around the burner head for evenly heating all the air admitted at the opening 25, prior to its passage upward to the urn hot air space. This plate 26, is preferably held up to stops on the casing basepiece 3, by downward extensions of two or more of the clamp bolt parts 13, which receive extra nuts below the plate, as shown in Fig. 1, of the drawings. The waste hot products pass slowly from the space 22, through upper apertures 28 made in the shell 1, of the casing.

The burner has a wire gauze inlet at 29, for atmospheric air which commingles with gas admitted from a pipe 30, leading from any convenient source of supply. I make the burner with an arched or hollow base 31, above which a lateral gas inlet is provided at 32, to receive a nipple taking gas from the flexible tube 30, attached above the table 6, and as shown in full lines in Fig. 1, of the drawings. I also provide the burner stem with a bottom opening 33, adapted for attachment of a gas supply pipe coming through the table from below. An interchangeable plug 34, shown closing the opening 33, is adapted also to the other opening 32, thus per-



mitting connection of the gas supply pipe from either above or below the table as circumstances may require. In Fig. 1, of the drawings the plug 34 is applied to the lower burner opening 33, while in Fig. 5, the plug is applied at the upper burner opening 32, and the gas supply pipe 30<sup>a</sup>, is attached from below at the lower opening 33. The urn has the usual fluid gage 35, communicating with the fluid outlet 19, and the faucet 36, as shown in Fig. 1, of the drawings.

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

15 1. The combination, with the casing and the crock or liquid vessel, of a detachable ring or collar on the crock, and clamping devices engaging the casing and collar, substantially as described.

20 2. The combination, with the casing, the crock or liquid vessel, and a detachable ring or collar on the crock, of two-part bolts drawing upon the casing and engaging the collar, substantially as described.

25 3. In an urn of the character described, the combination with the casing, of an interior crock or liquid holding vessel sustained therefrom, and provided at its upper open end or part with a groove or gutter, the casing having a tongue or lip entering the crock groove and providing for a water seal, substantially as described.

30 4. The combination, with the casing, the

crock or liquid holding vessel, and a detachable ring or collar on the crock, of a heat deflector below the crock having lugs engaging the casing, and clamping devices engaging the casing, the crock collar and the deflector, substantially as described. 35

5. The combination, with the casing, and the crock or liquid holding vessel, of a detachable ring or collar on the crock, a heat deflector below the crock having lugs engaging the casing, and two-part bolts engaging the casing, the crock collar, and the deflector, substantially as described. 45

6. The combination with the casing, 1, 2, 3, and removable crock 7, having flange 8, of a collar 10, having lugs 11; and two-part bolts 12, 13, jointed at 14, and holding the parts of the casing together while clamping the crock to the casing headpiece, substantially as described. 50

7. The combination, with the casing 1, 2, 3, and removable crock 7, having flange 8, of a collar 10, having lugs 11, a heat deflector, 18, below the crock and having lugs 20; and two-part bolts 12, 13, jointed at 14, and holding the parts of the casing together, while clamping the crock and deflector thereto, substantially as described. 60

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Witnesses:

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