(No Model.)

C. S. DUNHAM.

SECTIONAL ODORLESS KETTLE OR STEAMER.

No. 450,328. Patented Apr. 14, 1891.

Fig. 1.

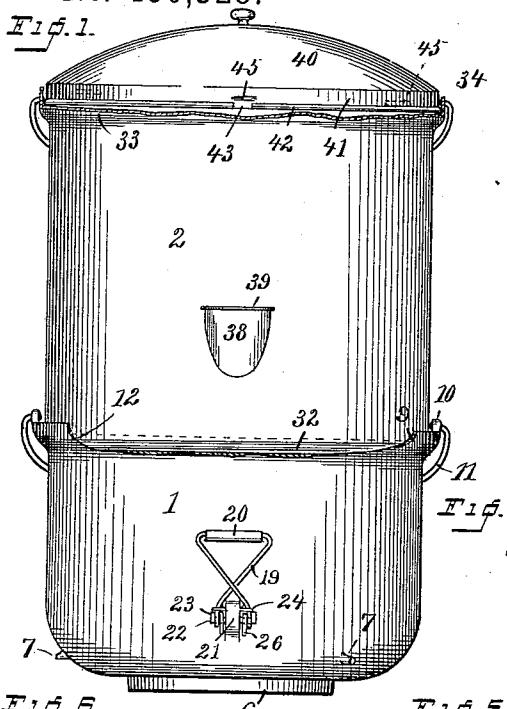


Fig. 2.

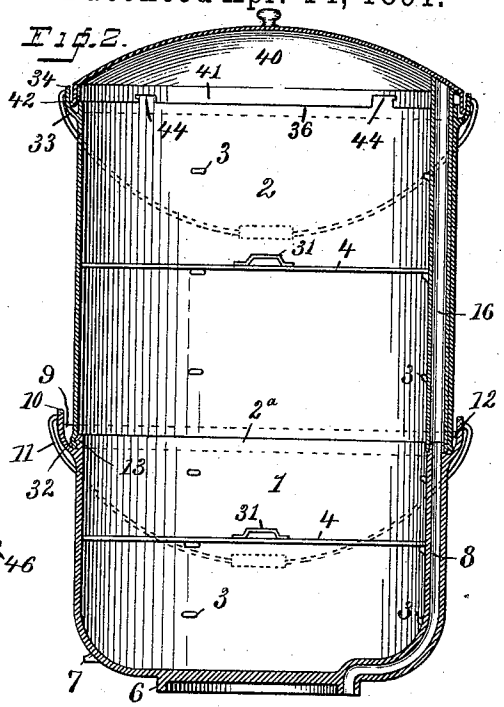


Fig. 8.



Fig. 6.

Fig. 5.

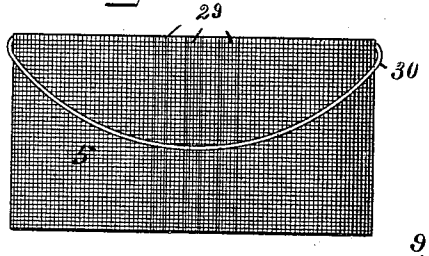
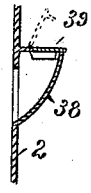


Fig. 7.



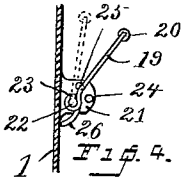


Fig. 4.

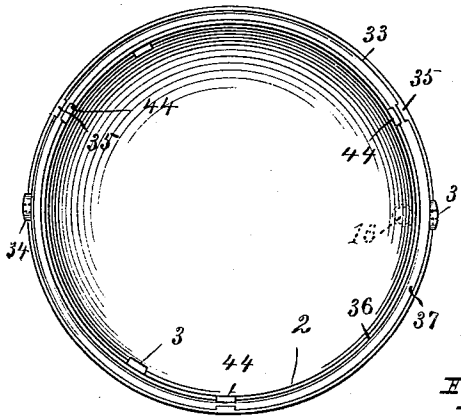


Fig. 3.

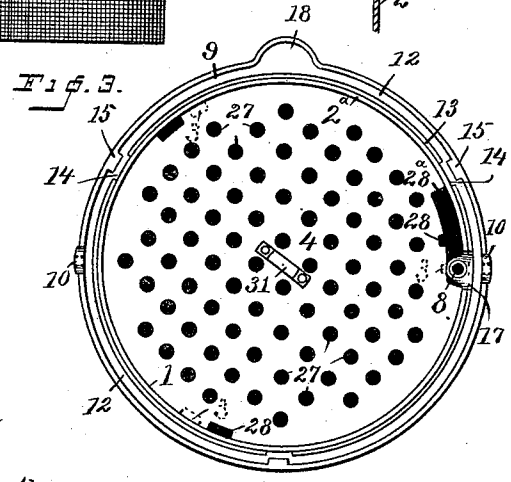
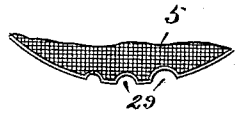


Fig. 5a.



WITNESSES

C. M. Newman,

Arley S. Munson.

INVENTOR

Charles S. Dunham

By A. M. Wooster

Atty.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

CHARLES S. DUNHAM, OF WATERURY, CONNECTICUT.

SECTIONAL ODORLESS KETTLE OR STEAMER.

SPECIFICATION forming part of Letters Patent No. 450,328, dated April 14, 1891.

Application filed October 29, 1890. Serial No. 369,698. (No model.)

To all whom it may concern:

Be it known that I, CHARLES S. DUNHAM, a citizen of the United States, residing at Waterbury, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Sectional Odorless Kettles and Steamers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has for its general object to improve the construction and operation in use of this class of culinary implements; and with this end in view my invention consists in the special details of construction hereinafter described, and then specifically pointed out in claims.

In the accompanying drawings, forming part of this specification, Figure 1 is an elevation of my improved kettle and steamer; Fig. 2, a vertical section thereof; Fig. 3, a plan view of the lower section, showing a steaming-disk in place, the cover being removed; Fig. 4, a plan view with the extension in place and the steaming-disk and cover removed; Fig. 5, an elevation of a steaming-basket adapted to fit within either section; Fig. 5ª, a detail plan view of the steaming-basket, showing the grooves in the edge thereof; Fig. 6, a detail sectional view illustrating the construction of one of my novel pouring-handles; Fig. 7, a detail sectional view illustrating the construction of the filling-spout; and Fig. 8 is a view of the odor-tube cap detached.

1 denotes the lower section or base, which is preferably cast, and constitutes a perfect kettle in itself, and 2 the upper section, which is ordinarily made of sheet metal. Both sections are provided with lugs 3 on their inner sides to support steaming-disks 4 or a steaming-basket 5. The lower section or base is provided with a flange 6 around the bottom and with outwardly-projecting lugs 7 to adapt the kettle to fit different-sized holes in stoves and ranges.

8 denotes an odor-tube, which is cast on the inner side of the lower section and extends from the top down to the bottom thereof, the lower opening being within the flange, so as to insure that the vapors of cooking will pass into the fire-box of the stove or range. At the top of the lower section is an outwardly-curved flange 9, provided with ears 10 to receive a bail 11. Between the flange and the rim of the lower section, which is denoted by 2ª, is a groove 12, and above the groove on the outer side of the rim is a rounded male thread 13, by which the upper section or the cover may be attached, as will be more fully explained.

14 denotes notches or breaks in thread 13, and 15 denotes inwardly-extending lugs on flange 9. These lugs are shown as registering with notches 14, although that is wholly immaterial in practice, as a different number of lugs and notches may be used. It is essential, however, that they register with the notches in the bead on the cover, as will be more fully explained. I preferably use three lugs and three notches, and arrange them as shown. The top of the odor-tube is provided with an external screw-thread, as shown in Fig. 2.

16 denotes a removable odor-tube, which is used in connection with the upper section 2, the lower end of the removable tube being provided with a screw-thread to engage the thread on odor-tube 8. When the removable odor-tube is not used, odor-tube 8 is closed by a screw-cap 46. (See Fig. 8.)

For convenience in attaching the removable odor-tube the rim of the lower section is cut away, as at 17. (See Fig. 3.) This cut-away portion serves an additional purpose in that it permits the surplus water of condensation in groove 12 to drain inward into the lower section, thereby entirely preventing boiling over, it being understood, of course, that cut-away portion 17 does not extend down to the bottom of the groove, so that sufficient water is always retained in the groove to insure a tight joint between the lower section and the upper section or the cover, as may be. The removable odor-tube is clearly shown in Fig. 2, and its position is indicated by dotted lines in Fig. 4.

18 denotes a pouring-spout in flange 9, and directly opposite to this spout on the outer side of the lower section is a pouring-handle of special construction. (See Figs. 1 and 6.)

This handle consists of a wire bail 19, the sides of which are crossed, as shown in Fig. 1, and which is provided with a non-conducting hand-piece 20. This handle is attached to an ear 21, cast on the outer side of the lower section. The ear is provided on opposite sides with lugs 22, having upturned ends 23. The wire of the bail is passed once around these lugs, the upturned ends serving to hold it from slipping off. The ear is also provided with pins 24, which limit the outward movement of the handle in pouring, and with stops 25, which hold the handle out of the way when not in use, as shown in dotted lines in Fig. 6. The sides of the wire bail after being crossed, as shown in Fig. 1, pass on the inner sides of pins 24, are coiled once around lugs 22, being held in place by the upturned ends, and the free ends of the wire bail (denoted by 26) rest against the side of the kettle, as clearly shown in Fig. 6. It will be seen that this construction holds the handle firmly in place, but at the same time gives all the spring action that can be required, the outward movement of the handle being stopped by pins 24. When not in use, the sides of the bail are simply pushed upward and sprung over stops 25, which act to hold the handle in the position shown in dotted lines in Fig. 6, while at the same time the spring action holds the hand-piece out of contact with the side of the kettle. The steaming-disks are provided with the usual perforations 27, and with notches 28 in their edges, which are adapted to register with lugs 3 on the inner side of either of the sections, so that the disk may be placed at any desired height from the bottom, and then when turned slightly will rest upon one of the sets of lugs.

In practice I preferably place lugs 3 upon the exterior of the odor-tube, a special notch 28^a being formed in the edge of each steaming-disk to receive the odor-tube in addition to the notches 28 to receive lugs 3. The steaming-baskets are provided with different-sized grooves 29, which permit the basket to be placed at any height in either the upper or lower section, the upper section being of slightly greater diameter than the lower section. The steaming-basket is provided with a bail 30 and the steaming-disks with handles 31 for convenience in placing them in position and removing them. At the lower end of the upper section is a female thread 32, which is adapted to engage thread 13 on the lower section to secure the two parts together, these threads being preferably given a suitable pitch, so that a single rotation of the upper section will secure the two parts firmly together. In the side of the upper section I place a filling-spout 38, having a suitable cover 39. This spout enables the user to pour in water at any time, if required, without the necessity of taking the sections apart or even lifting the cover. At the upper end of the upper section is an outwardly-curved flange 33, provided with ears 34 to receive the bail and with inwardly-extending lugs 35. This flange projects somewhat above the rim of the section, which is denoted by 36, a groove 37 being formed between the rim and the flange. At the top of the rim are raised outwardly-turned lugs 44, which register with lugs 35 on the flange, as shown in Fig. 4. Two of these lugs are higher than the other, so as to permit the side of the cover upon which the odor-tube lies to be lifted slightly by the steam, as will be more fully explained.

The cover denoted by 40 is preferably made dome-shaped, although, of course, a flat cover may be used, if preferred.

The removable odor-tube 16 is provided with lugs 3 in the same manner as the odor-tube in the lower section to assist in supporting either steaming-disks or a steaming-basket, which of course act additionally to brace and support said tube. The top of the removable odor-tube is preferably made highest on one side, the inner side when tightened up, as clearly shown in Fig. 2, and the cover is made to fit it closely. The cover is provided with the usual flange 41, which fits down into groove 37, and the flange is provided with a bead 42 on its outer face, said bead having notches 43, (see Fig. 1,) which correspond with lugs 35 and 44 on the flange and rim. On the inner side of the flange of the cover are lugs 45, ordinarily indentations from the outer side. These lugs correspond in number with lugs 35 and 44 and the notches in the bead of flange 41. They are, however, placed spirally at varying distances from the lower edge of the flange so as to adapt them to engage thread 13 upon the lower section. The cover is adapted to fit either the upper or lower section. When used upon the lower section, notches 43 in the bead of the cover are placed opposite to lugs 15 on the flange, lugs 45 on the inner side of the rim of the cover at the same time passing through notches 14 in thread 13. The cover is then turned sufficiently to cause a perfect engagement with the section. When the cover is used upon the upper section, lugs 45 on the cover are placed at one side of lugs 44 on the section, which permits the cover to drop down. It is then turned sufficiently so that notches 43 in the bead on the cover will receive lugs 35 on flange 33. This holds the cover securely in place, but owing to the fact that the lugs 44 on the side toward the odor-tube are made higher than the other lugs 44 it follows that the cover may be lifted when the pressure of the steam becomes sufficiently heavy.

It has been the most serious objection to this class of cooking-utensils as heretofore constructed that it was impossible to get sufficient pressure of steam in the upper section to cook vegetables within a reasonable length of time. This result is accomplished, however, in my novel kettle by making water-joints between the lower and upper sections and between the cover and the upper section. As already stated, the top of the odor-tube

is made to conform to the curvature of the kettle, so that a perfectly-tight joint is made there. It will of course be understood that it is necessary to provide ready escape for the steam when sufficient pressure for cooking purposes is secured. This is accomplished, as already stated, by making the lugs 44 on the side toward the odor-tube high enough to permit the cover to be raised slightly on that side by the pressure of steam. This permits the steam to pass into the odor-tube under the cover, and down into the fire-box, there being no escape of steam outside of the kettle, and consequently no escape of the odors of cooking.

Having thus described my invention, I claim—

1. A kettle having upon the outer side of its rim a thread 13 with notches 14, and outside of the rim a flange 9 with lugs 15, in combination with a cover having a rim with lugs 45 on its inner side adapted to engage the thread, and a bead on its outer side having notches adapted to engage lug 15.

2. A kettle having upon the outer side of its rim a thread 13 with notches 14, and outside of the rim a flange 9 with lugs 15, in combination with an upper section having at its lower end a thread 32 adapted to engage thread 13, and at its upper end a rim, and outside of the rim a flange, said flange and rim having lugs, substantially as described, and a cover with a rim having lugs 45 on its inner side, and a bead on its outer side having notches 43, so that the upper section will engage the kettle and the cover will engage either the upper section or the kettle.

3. The combination, with the kettle, upper section, and cover, substantially as described, of an odor-tube 8, cast within the lower section and having at its upper end a screw-thread, and a removable odor-tube threaded at its lower end to engage tube 8, and extending to the top of the upper section, as and for the purpose set forth.

4. The combination, with the kettle, upper section, and cover, substantially as described and shown, of an odor-tube 8, cast within the lower section and having at its upper end a screw-thread, and a removable odor-tube threaded at its lower end to engage tube 8, said removable tube extending above the top of the upper section and made highest on its inner side, so as to fit the cover and prevent escape of steam.

5. The kettle having an odor-tube 8 cast therein, said tube having a screw-thread at its upper end, the upper section adapted to be secured to the kettle and having at its upper end a rim provided with lugs 44, two of which are higher than the other, and a flange having lugs 35, in combination with a removable odor-tube adapted to engage the thread on tube 8, said removable tube extending above the top of the upper section and made highest on its inner side, and a cover having a bead 42, with notches 43 to receive lugs 44, the bead being in contact with the lowest lug 44, so that the pressure of steam will act to lift the cover slightly and permit escape of steam through the odor-tube, substantially as described.

6. A kettle having on its inner side an odor-tube cast integral therewith, a rim having cut-away portions 17 at the sides of the odor-tube, and a flange outside of the rim forming a groove extending below the cut-away portions, in combination with a cover having a rim lying in the groove and engaging the flange and rim, so that a water-joint is formed which permits the surplus water of condensation to pass into the kettle at cut-away portions 17, so that boiling over is entirely prevented.

7. The combination, with the kettle having an odor-tube 8 on its inner side, the upper section adapted to be attached to the kettle, and a removable odor-tube adapted to be attached to tube 8, said kettle and upper section and both odor-tubes being provided with lugs 3, of steaming-disks each of which is provided with notches 28^a to receive either odor-tube, and notches 28 to receive lugs 3, so that said steaming-disks may be placed at any position in the kettle or upper section, and when turned slightly will rest upon the lugs.

8. The kettle having upon its outer side an ear 21, said ear having on opposite sides lugs 22 with upturned ends, pins 24, and stops 25, in combination with a bail 19, the opposite sides of which are crossed, then passed around lugs 22, the free ends 26 lying against the sides of the kettle, said pins acting to limit the outward movement of the bail and the stops to hold it out of operative position.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES S. DUNHAM.

Witnesses:

E. R. PERKINS,

C. H. BRONSON.