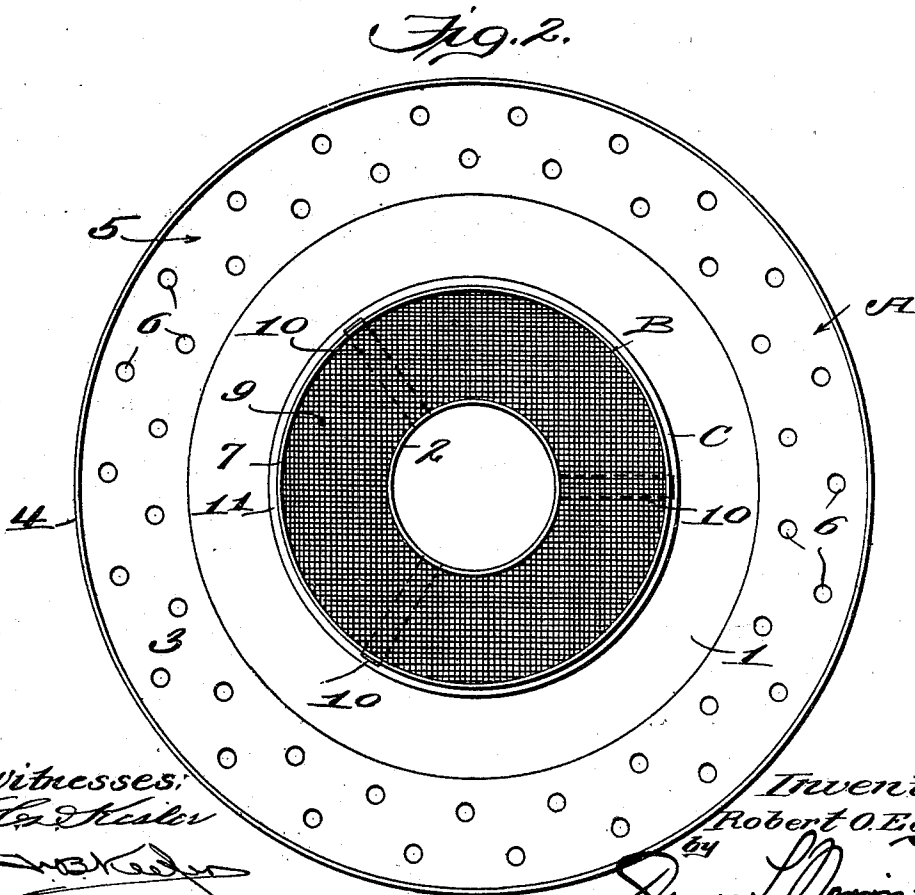
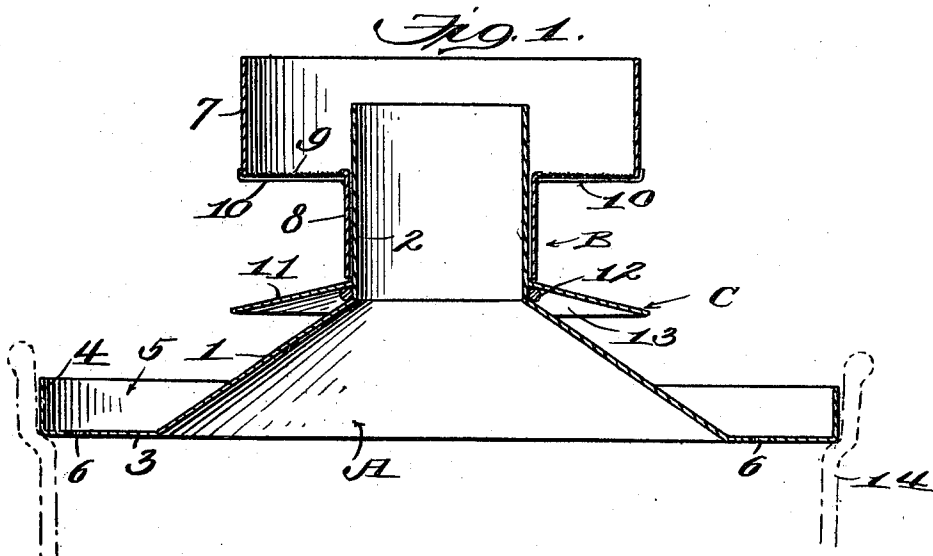


R. O. EAGLE.
 SYRUP SKIMMER.
 APPLICATION FILED OCT. 31, 1910.

996,472.

Patented June 27, 1911.



Witnesses:
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UNITED STATES PATENT OFFICE.

ROBERT OLLIVER EAGLE, OF TALLAHASSEE, FLORIDA.

SYRUP-SKIMMER.

996,472.

Specification of Letters Patent. Patented June 27, 1911.

Application filed October 31, 1910. Serial No. 590,068.

To all whom it may concern:

Be it known that I, ROBERT OLLIVER EAGLE, a citizen of the United States, residing at Tallahassee, in the county of Leon and State of Florida, have invented new and useful Improvements in Syrup-Skimmers, of which the following is a specification.

The present invention has reference to improvements in syrup skimmers, and it comprehends, generally, the production of an extremely simple and inexpensive device of the class specified constructed in such a manner that, when placed in position on a syrup pot or kettle, it will serve to automatically remove all impurities from the syrup while the latter is boiling, and will also serve in a measure to cool the syrup during the skimming, thus obviating the necessity for the skimming and cooling operation being effected by hand.

More especially the invention resides in the specific construction of the component parts of the improved skimmer, and in the arrangement of said parts to each other, as illustrated in the accompanying drawing, wherein—

Figures 1 and 2 are, respectively, a central vertical section and a plan view of the preferred embodiment of the invention.

As shown in said drawing, the device consists essentially of three elements, namely, the base, indicated in a general manner by the letter A, and the strainer and cooler similarly indicated by the letters B and C. The first-mentioned element comprises a hollow frusto-conical central portion 1, having its upper end provided with a tubular extension 2, and its lower end provided with a flat circumferential extension 3 formed, in turn, with an upstanding peripheral flange 4. Said element is preferably of integral construction throughout and may be formed of any suitable sheet material, the portions 1, 3 and 4 constituting, respectively, the inner, bottom and outer walls of a trough or gutter 5, as hereinafter explained. The bottom wall of this gutter is formed with a series of perforations 6.

The straining element B is removably connected with the base, and is composed of an upper annular member 7 and a lower tubular member 8, the latter member fitting over the tubular extension 2 of said base. The diameter of the annular member 7 is considerably greater than that of the tube 8, with respect to which it is concentrically ar-

ranged, the lower edge of the former member being joined to the upper edge of the latter member by a flat strip 9 of suitable screening fabric; said strip thus constituting the bottom wall of the strainer. To reinforce this strip, radially-arranged metallic brace straps 10 are provided, said braces being disposed against the under face of the strip and connected at their opposite ends to the adjacent edges of the members 7 and 8. The upper end of tube 2 projects a slight distance above the bottom wall of the strainer.

The cooler C is interposed between the strainer and the frusto-conical portion 1 of the base. It consists, primarily, of a downwardly-inclined frusto-conical baffle plate 11 which is strengthened and supported in position by a spacing ring 12 and in turn supports the lower edge of the strainer tube 8, said ring being secured to the under face of plate 11 and resting upon the base portion 1 at the point where the latter and the tube 2 meet. Plate 11 possesses a much less degree of inclination than member 1 which it overhangs, thereby producing an interposed air space 13 of gradually increasing width, the width of said plate being, however, approximately the same as that of the screen proper, *i. e.*, the fabric strip 9, and half that of said member 1.

The device as a whole is adapted to be supported in any suitable manner in the top part of an ordinary syrup kettle or pot, indicated diagrammatically by the numeral 14 in Fig. 1.

In operation, the kettle or pot is placed over a furnace, with the skimmer in place. As the syrup is brought to a boil, it passes upward through the hollow portions 1 and 2, and over the edge of the latter portion into the strainer, passing through the meshes of the screening fabric and depositing such impurities as it contains on said fabric. The strained syrup then falls onto the inclined baffle plate 11, which is maintained in a more or less cool state by the air in the space or chamber 13, the air striking the syrup as it drips from the edge of said plate and falls onto the lower part of the inclined base portion 1. From said base portion, it flows to the gutter 5 and returns to the kettle or pot through the perforation in the gutter bottom. It will be seen, therefore, that the syrup will travel or circulate in a practically continuous path from the pot or kettle to

the skimmer, and from the latter back to the pot or kettle, being cooled somewhat during the second part of its travel, and being cleared of its impurities by its repeated passages through the straining fabric. All necessity for manual skimming and cooling is, therefore, obviated.

I claim as my invention:

1. A syrup skimmer comprising, in combination, a base provided with a hollow inclined deflector; a strainer mounted on said base above the deflector; and a baffle plate interposed between said strainer and deflector and overhung by the former, said plate being set at an angle to said deflector to produce an air chamber therebetween for cooling the strained liquid which falls from the strainer onto said plate and drips from the edge of the latter across said chamber.

2. A syrup skimmer comprising, in combination, a base provided with a hollow inclined deflector; a strainer mounted on said base above the deflector and provided with a screen; and a baffle plate interposed between said screen and deflector and overhung by the former, said plate being set at an angle to said deflector to produce an air chamber therebetween for cooling the strained liquid which falls through said screen onto said plate and drips from the edge of the latter across said chamber.

3. A syrup skimmer comprising, in combination, a base provided with a hollow frusto-conical deflector; a strainer mounted on said base above the deflector and provided with a screen; and a frusto-conical baffle plate interposed between said screen and deflector and overhung by the former, said plate being set at an angle to said deflector to produce an air chamber therebetween for cooling the strained liquid which falls through said screen onto said plate and drips from the edge of the latter across said chamber.

4. A syrup skimmer comprising, in combination, a base provided with a hollow deflector having a continuous inclined wall; a strainer mounted on said base above said deflector and provided with a screen overhanging the same; and an inclined imperforate

baffle plate mounted on said base between said screen and said deflector and set at an angle to said deflector to produce an interposed air chamber for cooling the strained liquid which falls onto said plate through the screen and drips from the ends of said plate across said chamber.

5. A syrup skimmer comprising, in combination, a base provided with a hollow deflector having a continuous inclined wall, and with a tube extending upward from the upper edge of said wall; an inclined annular plate encircling the lower end of said tube; and a strainer removably mounted on said tube above said plate and provided with a foraminous bottom wall overhanging the latter, said plate extending outwardly across the deflector wall and being set at an angle to the same to produce an interposed air chamber therebetween for cooling the liquid which falls onto the plate through the strainer wall and drips from the outer edge of said plate across said chamber.

6. A syrup skimmer comprising, in combination, a base provided with a hollow deflector, a perforated gutter surrounding the lower edge of the deflector and a tube extending upwardly from the lower edge of said deflector; a strainer composed of a tubular lower member removably fitted on said tube, an annular upper member surrounding the upper end of said tube and spaced from the same, and a screen connecting the adjacent edges of said annular and tubular members and overhanging said deflector; and a baffle plate interposed between said strainer and deflector and extending outwardly across the latter at an angle thereto to produce an air chamber for cooling the liquid which falls onto the baffle plate through said screen and drips from the outer edge of said plate across said chamber.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ROBERT OLLIVER EAGLE.

Witnesses:

C. A. SCHOEMAKER,
JNO. C. BARNETT.