

(No Model.)

J. J. WILSON.

APPARATUS FOR THE MANUFACTURE OF SUGAR SIRUPS.

No. 463,564.

Patented Nov. 17, 1891.

Fig. 1.

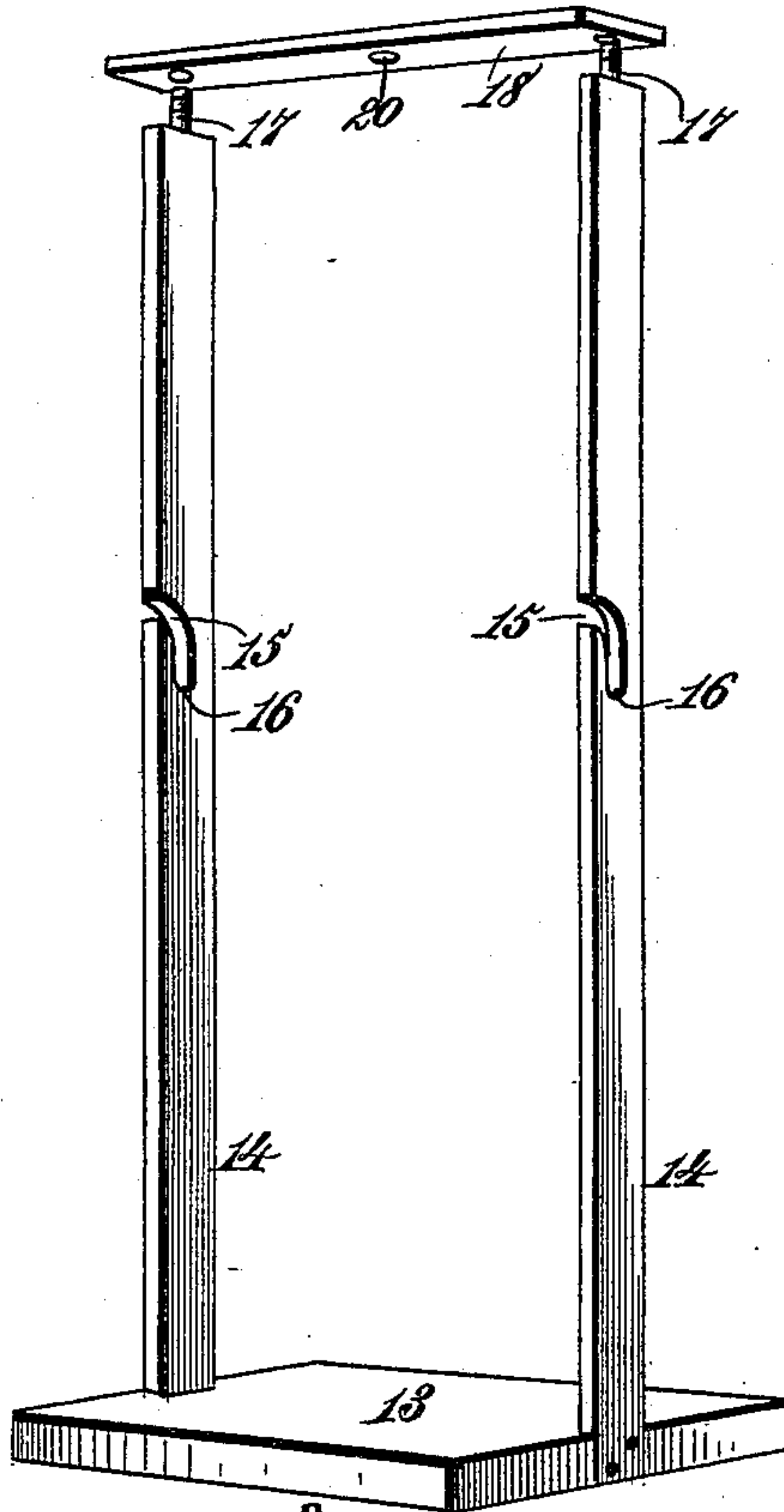


Fig. 2.

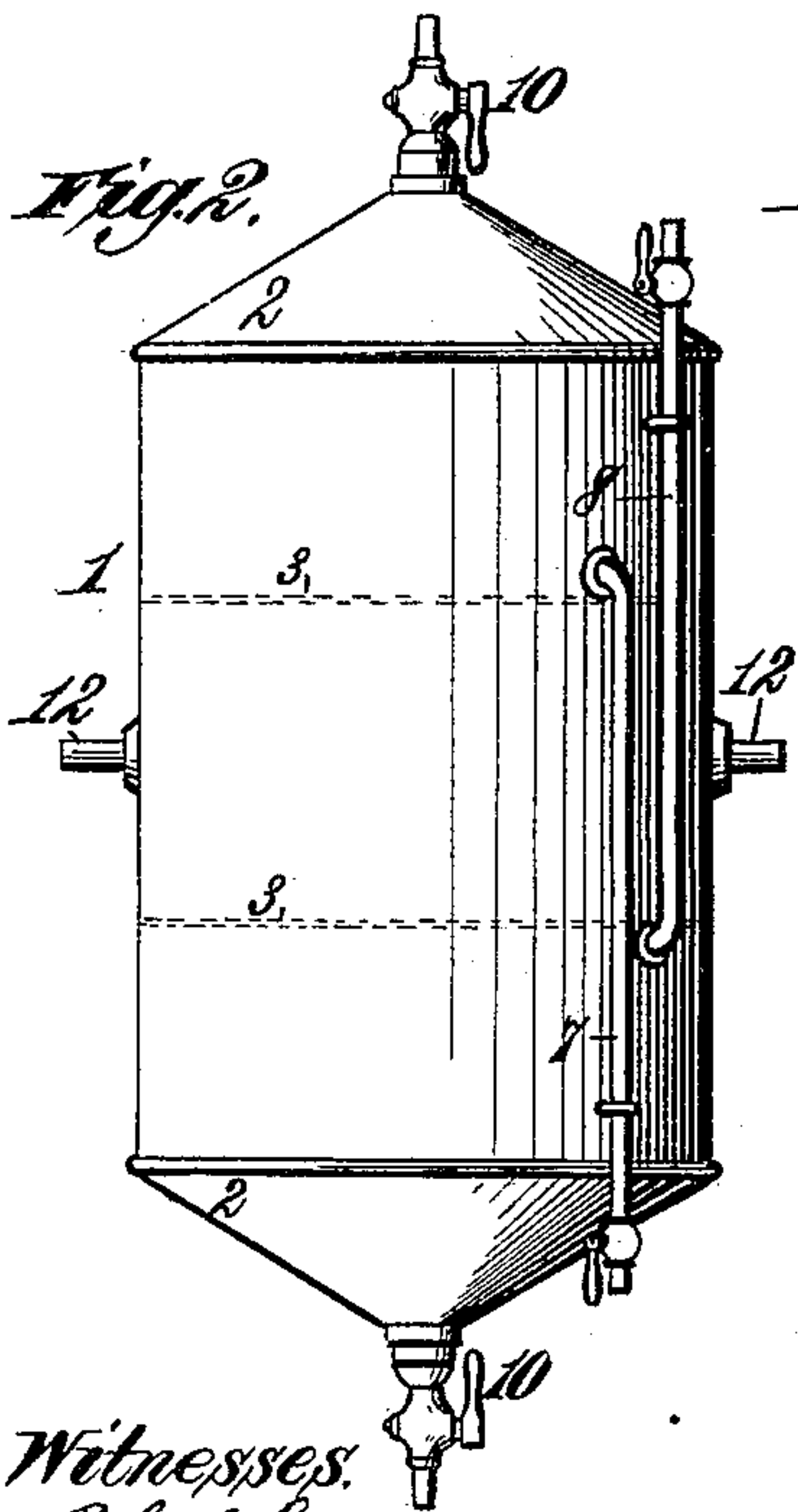


Fig. 3.

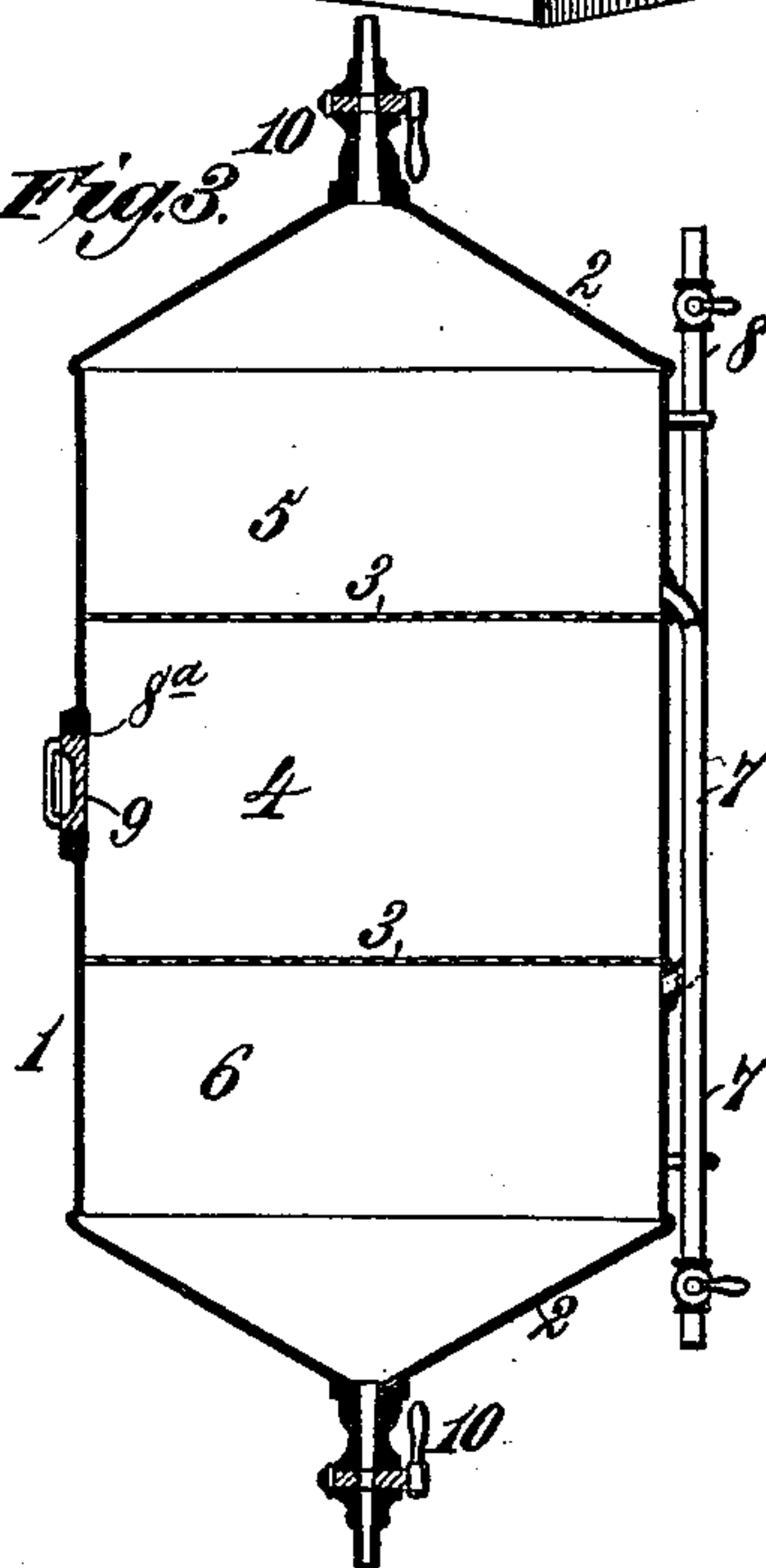
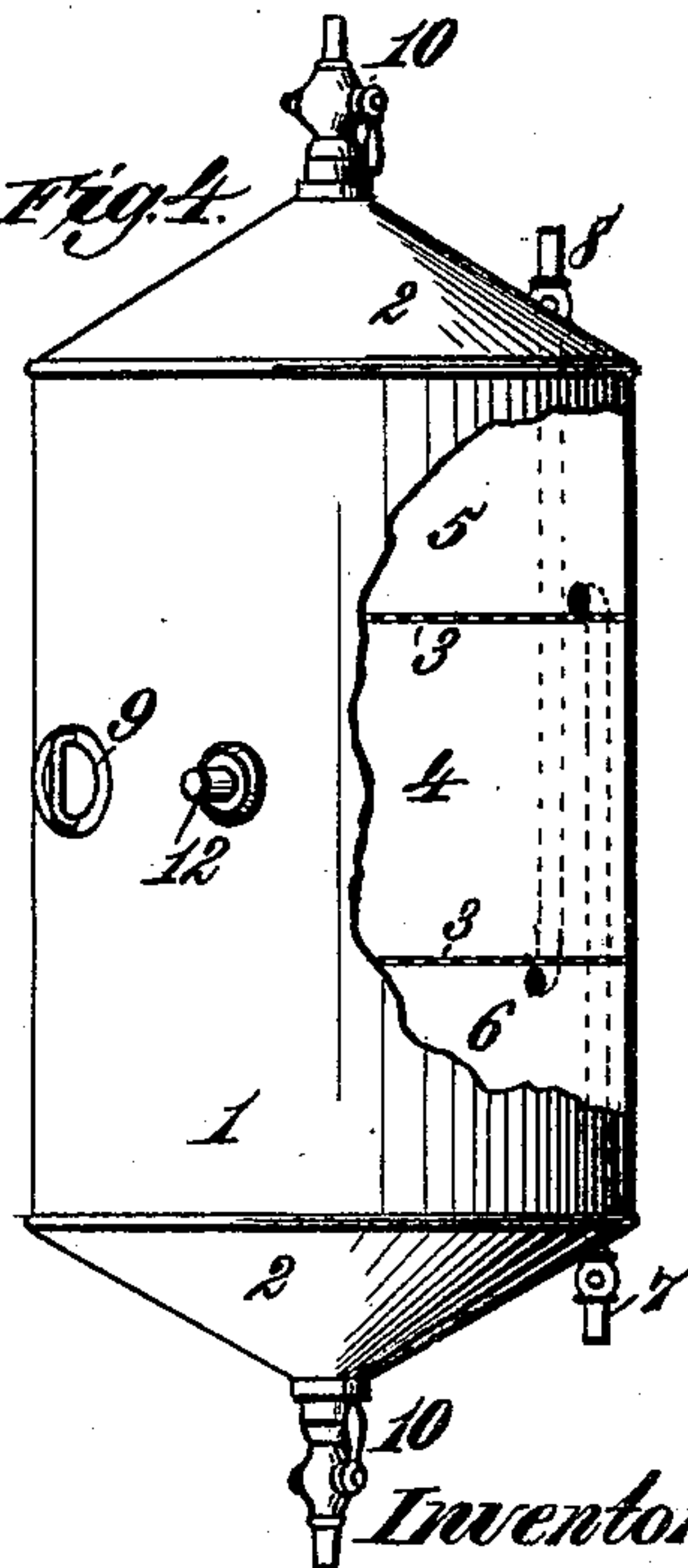


Fig. 4.



Witnesses.

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UNITED STATES PATENT OFFICE.

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APPARATUS FOR THE MANUFACTURE OF SUGAR SIRUPS.

SPECIFICATION forming part of Letters Patent No. 463,564, dated November 17, 1891.

Application filed February 12, 1891. Serial No. 381,222. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH J. WILSON, a citizen of the United States, residing at Coldwater, in the county of Tate and State of Mississippi, have invented new and useful Improvements in Apparatus for the Manufacture of Sugar Sirups, of which the following is a specification.

My invention relates to that class of devices employed in the manufacture of sugar sirups adapted for use in connection with soda-fountains, as well as in the composition of medicines where simple sirup is required.

It is the purpose of my invention to provide an apparatus by which the best quality of sirup may be made at one-half the cost involved in using rock-candy, and by which the entire operation may be performed easily, conveniently, and quickly, and whereby also the sirup when made shall be strained and freed from all foreign impurities and ready for use the moment it is withdrawn from the apparatus.

It is my purpose, also, to provide means whereby the percolator, which is when filled of considerable weight, may be easily and quickly reversed end for end and locked in either position.

It is my further purpose to provide a simple and novel stand or frame, upon which the trunnion-pins of the percolator shall have support, whereby the latter, which is of considerable weight when charged or filled, may not only be easily and quickly reversed, but may when empty be readily removed from and replaced in said frame.

It is my purpose, also, to provide a percolator or sirup-generator from which the sirup may be drawn off in a clean and clear condition and ready for immediate use.

It is my purpose, finally, to provide a sirup-generator or percolator which shall be provided with air-tubes entering the same near the opposite ends and having their other extremities opening outside the generator to permit the ready cleansing of the same.

To these ends my invention consists in the several novel features of construction and new combinations of parts hereinafter fully described, and then definitely pointed out in the claims following this specification.

To enable others skilled in the art to make

and use my said invention, I will proceed to describe the same in detail, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of the rack or frame for suspending the generator or percolator. Fig. 2 is a side elevation of the generator. Fig. 3 is a central vertical section of the same, showing the arrangement of the air-pipes. Fig. 4 is a side elevation with part of the cylindrical wall broken away to show the interior.

In the said drawings, the reference-numeral 1 designates the body of the generator, which is of cylindrical form, its ends being provided with conical caps 2, which impart additional strength and add to the neat appearance of the device. Within the interior of the cylindrical body are arranged two foraminous diaphragms 3, placed at substantially equal distances from the ends of said body, whereby a space 4 is allowed between them, for a purpose presently to be explained. Chambers 5 and 6 are also formed in the ends of the generator by the insertion of the foraminous diaphragms 3 at a distance from the ends of the generator.

Upon the exterior of the generator are arranged air-pipes 7 and 8, their exterior ends opening in opposite directions a little beyond the ends of the cylindrical body, while their other ends are bent to enter the cylindrical wall between the foraminous diaphragms and the conical ends of the generator. At a central point between the two diaphragms is formed an opening or entrance 8^a, closed by a suitable cover 9. At the apex of each conical end is attached a cock or faucet 10. Upon the cylindrical body 1 are formed or mounted trunnion-pins 12, between which the opening 8 is arranged, said pins being substantially central upon the body of the generator.

The numeral 13 denotes a base-plate, from which rise two parallel and similar uprights 14, having open slots 15 cut in their edges, said slots leading to seats 16, adapted to receive the trunnion-pins 12. From the upper ends of the said uprights extend rods 17, which enter openings in a cross-plate 18, provided with a central aperture 20, which is adapted to receive the point of the cock 10 upon either end of the cylinder, and thereby hold the same in an upright position.

The operation of the device is as follows: The generator being empty, it is raised until its trunnion-pins enter the slots in the standards of the rack, whereupon it is turned until
 5 in a horizontal position, when its opening 8^a comes uppermost. The cap or cover closing this opening is then removed, and into the central chamber between the diaphragms is poured the necessary quantity of water, and
 10 then this chamber is filled with granulated sugar and the cap or cover is replaced. The generator is then turned into a vertical position and the cross-plate 18 is lowered until the point of the faucet enters the aperture
 15 20 therein, by which the generator is held upright. Then by opening the upper faucet, which admits air into the upper chamber, and also opening the upper air-tube, which opens into the lower chamber and allows the
 20 air to escape from the lower chamber, the water is caused to pass through the sugar into the lower chamber. After the water has percolated through the sugar and passed into the lower chamber and after closing the upper
 25 openings the generator is revolved until its lower end is brought into position to receive the cross-plate upon the end of its faucet, when the fluid passes back through the sugar, effecting a further solution, and this process
 30 is continued until the sirup is of the proper consistency. When this is effected, it may be drawn off ready for immediate use, the foraminous diaphragms having strained out all foreign impurities.

35 The apparatus can be made of sufficient size and strength to furnish sirup in large quantities, and it is easily and conveniently handled when of any size.

What I claim is—

40 1. The combination of a base-plate and up-rights having their edges cut with slots 15, leading to seats 16, with the revolving perco-

lator having a faucet at each end, and trunnions supported by said seats and removable through said slots, and locking devices, sub- 45
 stantially as described, for holding the percolator immovable in its perpendicular position, substantially as described.

2. The combination of a base-plate and up-rights having their edges cut with slots 15, 50
 leading to seats 16, with the revolving percolator having a discharge-faucet at each end, and trunnions supported by the seats and removable through said slots, and a cross-plate movably mounted upon the upper ends of the 55
 uprights and having an orifice to receive the discharge-faucet at either end of the percolator, substantially as described.

3. The combination of a base-plate and up-rights provided at their upper ends with guide- 60
 pins and having their edges cut with slots 15, leading to seats 16, with the revolving percolator having a discharge-faucet at each end, and trunnions supported by said seats and removable through said slots, and a cross-plate 65
 movably mounted on the guide-pins of the uprights and having an orifice for receiving the faucet at either end of the percolator, substantially as described.

4. The combination, with a sirup-percolator 70
 consisting of a cylindrical body closed at both ends and provided with foraminous diaphragms dividing the interior into a central chamber and two end chambers, of air-pipes arranged upon the exterior of the cylinder, 75
 where their open mouths are accessible, their other ends entering the end chambers of the percolator, substantially as described.

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

JOSEPH J. WILSON.

Witnesses:

A. C. WILSON,
 J. E. JOHNSTON.