(No Model.)

L. A. ULLRICH.

APPARATUS FOR COOLING ROASTED COFFEE.

No. 255,477 Patented Mar. 28, 1882.

Fig. 1.

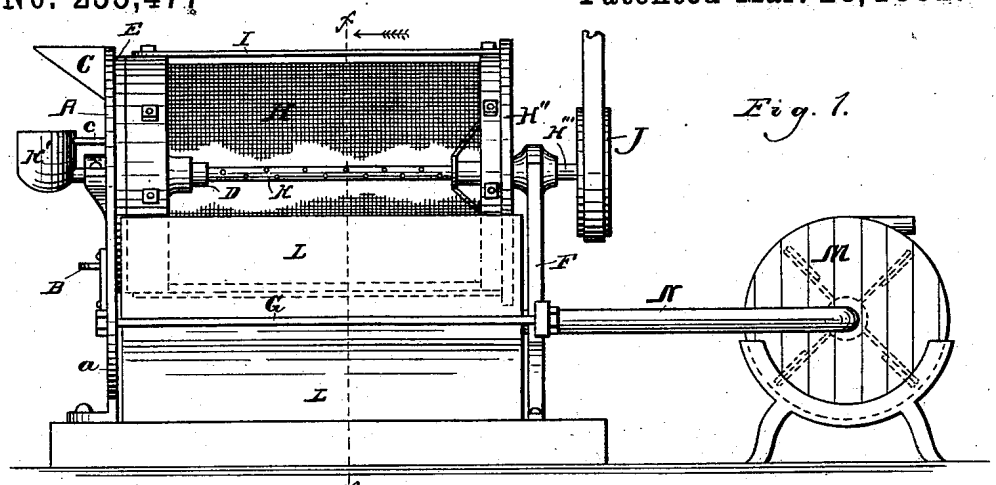


Fig. 2.

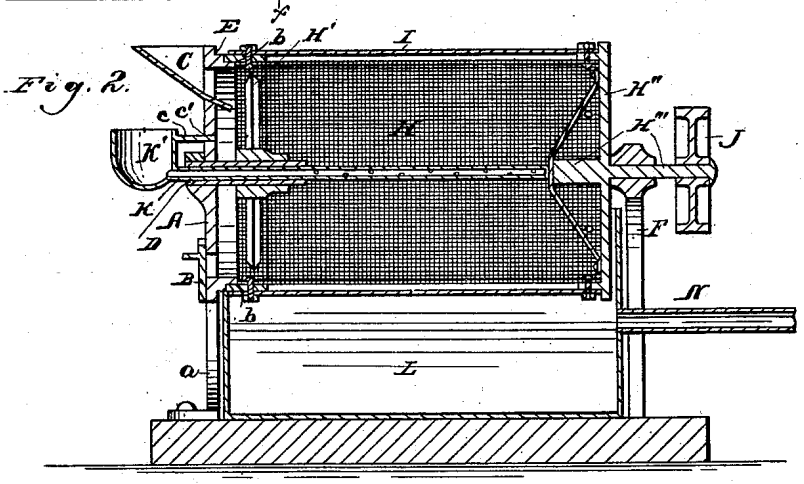


Fig 3.

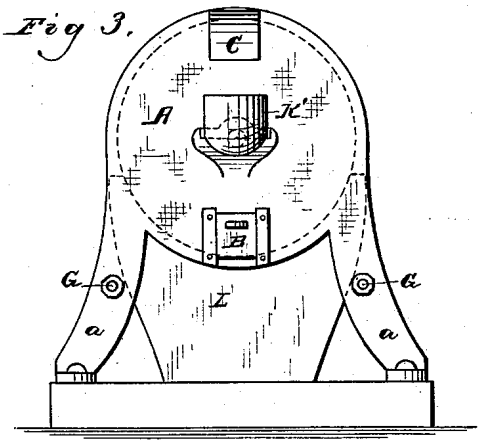
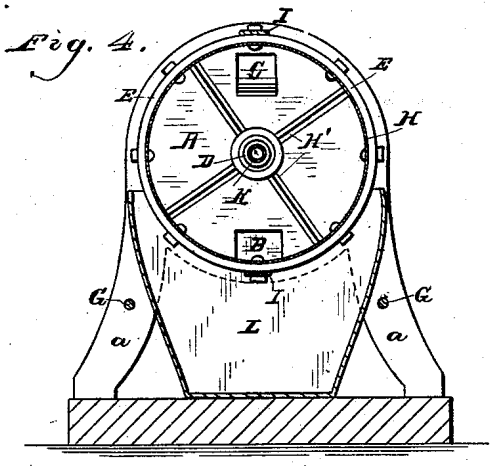


Fig. 4.



Witnesses
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UNITED STATES PATENT OFFICE.

LOUIS A. ULLRICH, OF CHICAGO, ILLINOIS.

APPARATUS FOR COOLING ROASTED COFFEE.

SPECIFICATION forming part of Letters Patent No. 255,477, dated March 28, 1882.

Application filed February 6, 1882. (No model.)

To all whom it may concern:

Be it known that I, LOUIS A. ULLRICH, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Apparatus for Cooling Roasted Coffee, of which the following, in connection with the accompanying drawings, is a full, clear, and exact description.

In the drawings, Figure 1 is a side elevation of an apparatus embodying my invention. Fig. 2 is a vertical longitudinal central section of the same. Fig. 3 is an end view thereof; and Fig. 4 is a section in the plane of the line *x x* of Fig. 1, viewed in the direction of the arrow there shown.

Like letters of reference indicate like parts.

A represents the front plate or head of the apparatus, and *a a* are legs which rigidly support the said plate.

B is a sliding door in the lower part of the head A, and C is a hopper in the upper part thereof.

D is a hollow shaft or axle entering the central part of the head A.

E is an annular flange or rim on the inner face of the head.

F is a standard, support, or frame, and G G are connecting rods or bars connecting it to the head A.

H is a wire-gauze cylinder having an open or skeleton head, H′, mounted on the shaft or axle D, and a full or solid head, H″, having a rigid shaft, H‴, turning in the support or bearing F.

I I are connecting bars or rods connecting the heads H′ and H″. The rim of the head H′ overlaps the flange E, as shown at *b*.

J is a driving-wheel on the shaft H‴.

K is a removable perforated tube or pipe entering the hollow shaft or axle D and extending centrally through the cylinder H, and K′ is a cup or hopper on the outer end of the tube K. To prevent the cup K′ from being tilted or tipped over, I employ a small arm or pin, *c*, which projects from the said cup and enters an opening, *c′*, in the head A.

L is a pan or vessel arranged underneath the cylinder H, and inclosing the lower part thereof.

M is an exhaust-fan, which may be made and operated in any well-known or suitable way, and N is an air pipe or duct entering the rear end of the vessel L and extending into the fan-chamber of the blower.

To use the machine now described for the purpose for which it is intended, I proceed as follows: After the coffee has been roasted, which may be done in the usual manner in a roasting-cylinder, I remove the coffee therefrom while it is hot and pour it into the hopper C of the cooler, from whence it passes through the head into the cylinder H. I also pour into the cup K′ some glazing liquid or liquor, which passes into the tube K and slowly out through the perforations or ports therein, thus distributing itself evenly upon the coffee in the cooler, it being understood that the cylinder H is being rotated at a suitable speed during this time, thus keeping the berries in motion. During this time the exhaust-fan M is also in operation, and produces an air-current which passes down through the cylinder H, thus cooling the coffee and at the same time drying it and drawing off the smoke. The pan L, by inclosing the lower part of the cylinder H, operates as an apron to shut off or prevent the entrance of air, excepting through the upper half or portion of the cylinder. The pan will also collect any particles which may fall through the cylinder H, and which are not carried out by the exhaust-fan. The particles which accumulate in the pan, if any, may be removed through a door provided for that purpose, or in any suitable way. After from one to two minutes the coffee will be cool and dry enough to be removed, and may be taken out through the door B, the head H′ being open, as shown and described. A spout entering the lower part of the head A, and provided with a sliding door, may be employed instead of the door B and its opening.

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

1. The combination, in a coffee-cooler, of the rotary wire-gauze cylinder H, removable perforated tube K, provided with hopper K′, and having a pin, *c*, and head A, provided with an opening, *c′*, substantially as shown and described.

2. The combination, in a coffee-cooler, of the rotary wire-gauze cylinder H, the pan L, inclosing a portion of the said cylinder, and an exhaust-fan having an air-eduction tube entering the said pan, substantially as and for the purposes specified.

3. The combination, in a coffee-cooler, of the rotary wire-gauze cylinder H, the pan L, inclosing the lower part of the said cylinder, the perforated feed-tube K, entering the said cylinder, and an exhaust-fan having an eduction-pipe entering the said pan, substantially as and for the purposes specified.

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