(No Model.)

J. C. SALZGEBER.

APPARATUS FOR TREATING HOT ROASTED COFFEE.

No. 329,490. Patented Nov. 3, 1885.

Fig. 1.

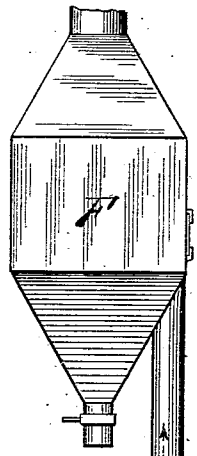


Fig. 3.

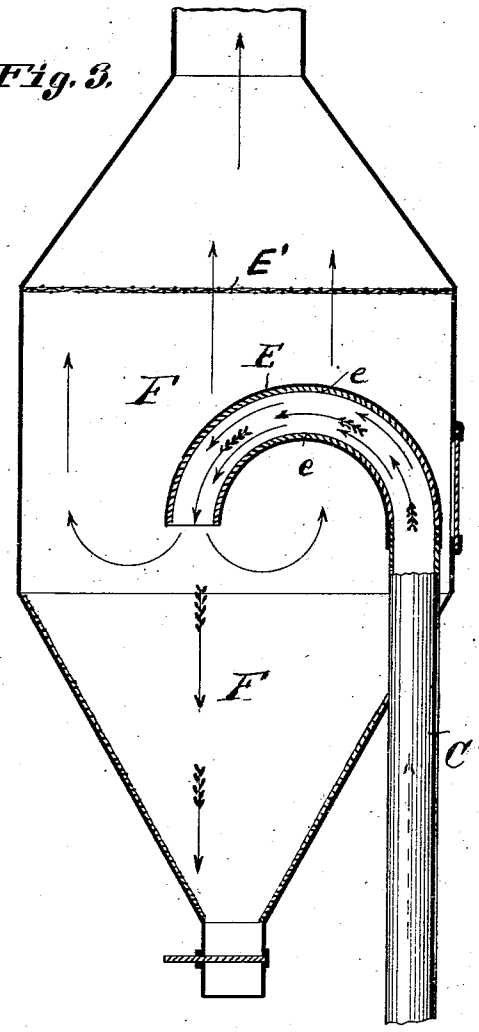
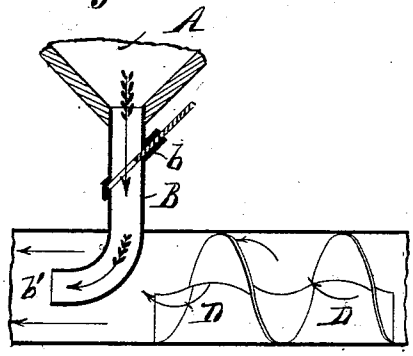
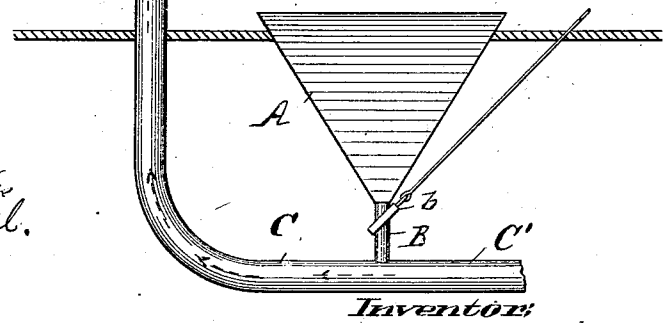


Fig. 2.





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UNITED STATES PATENT OFFICE.

JOHN C. SALZGEBER, OF ST. LOUIS, MISSOURI.

APPARATUS FOR TREATING HOT ROASTED COFFEE.

SPECIFICATION forming part of Letters Patent No. 329,490, dated November 3, 1885.

Application filed May 26, 1884. Serial No. 132,844. (No model.)

To all whom it may concern:

Be it known that I, JOHN C. SALZGEBER, a citizen of the United States, residing at St. Louis, and State of Missouri, have invented a new and useful Improved Apparatus to Treat Hot Roasted Coffee, of which the following is a specification.

My invention has for its objects to treat hot roasted coffee-grains for the purposes of cooling and adapting the same for packing or marketable uses; also my invention relates to the means employed at same time while cooling the hot coffee to elevate the grains from a lower feed-hopper to an upper discharge-hopper, all of which will now more fully appear. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation showing the upper discharge-hopper connected by blast-pipe to the lower feed-hopper. Fig. 2 is an enlarged sectional elevation of the lower feed-hopper, its slide-valve, its goose-neck or bent feed-pipe in communication with the lower portion of the air or blast pipe containing the spiral vanes. Fig. 3 is an enlarged sectional elevation of the upper discharge-hopper, showing more particularly the goose-neck portion of the air-pipe with its inside lining, and adapted to discharge the cooled coffee-grains centrally into said hopper.

Similar letters refer to similar parts throughout the several views.

A is the feed-hopper, into which the hot roasted coffee is emptied preparatory to being cooled and elevated to the upper hopper.

B is the feed-pipe, down which the hot coffee-grains from hopper A enter the air or blast-pipe C.

b is a slide-valve to control the feeding of the coffee to blast-pipe.

The lower end of the feed-pipe B is bent and has its outer opening at *b'* projecting beyond the vertical line of the feed-pipe, (see Fig. 2,) the purpose being to utilize the suction produced by the current of air along and up the pipe C, to impart momentum to the falling coffee-grains as same empty into the horizontal portion C' of the blast-pipe C. This portion of pipe C' contains the stationary spiral blades or vanes D, by means whereof the blast or current of air receives a spiral motion before reaching the coffee-grains, said spiral currents of air further commingling with and the better reaching every portion of the coffee-grains, thus resulting in a more perfect cooling of the same. I use a rotary fan-blower or other well-known apparatus to force and produce a current of air to pass along the blast-pipe from its lower portion, C', to the discharge end thereof at the top. At the same time that the hot coffee-grains are treated to the cooling action of the cold-air currents, said grains are forced along the pipe C and carried by the currents to the top, and finally discharged out of the goose-neck portion of pipe E into the upper hopper, F, which can be located several floors above, as indicated. The bend E of blast-pipe has inside the lining *e;* also the side or sides of the hopper F can be lined or provided with pliable material—like cloth—so as to preserve the coffee-grains and prevent their becoming broken or granulated.

E' is a screen partitioning the upper part of the hopper F. Through said screen the air-currents and impurities can freely pass and exhaust out at top. (See course of arrows.)

By my improvements hot roasted coffee can be very quickly and decisively cooled, cleaned, and at same time elevated to a point of discharge ready for immediate packing.

What I claim is—

The combination of the hopper A, feed-pipe B, having bent lower end, B', the air-pipe C, having stationary spiral vanes D, and its upper bend, E, having interior lining, *e*, the upper hopper, F, having screen E', all constructed, arranged, and operating substantially as and for the purposes specified.

In testimony of said invention I have hereunto set my hand.

JOHN C. SALZGEBER.

Witnesses:

WILLIAM W. HERTHEL,

JOHN W. HERTHEL.