(No Model.)

# C. L. COLE.

## COFFEE AND PEANUT ROASTER.

No. 340,289. Patented Apr. 20, 1886.

fig. 2.

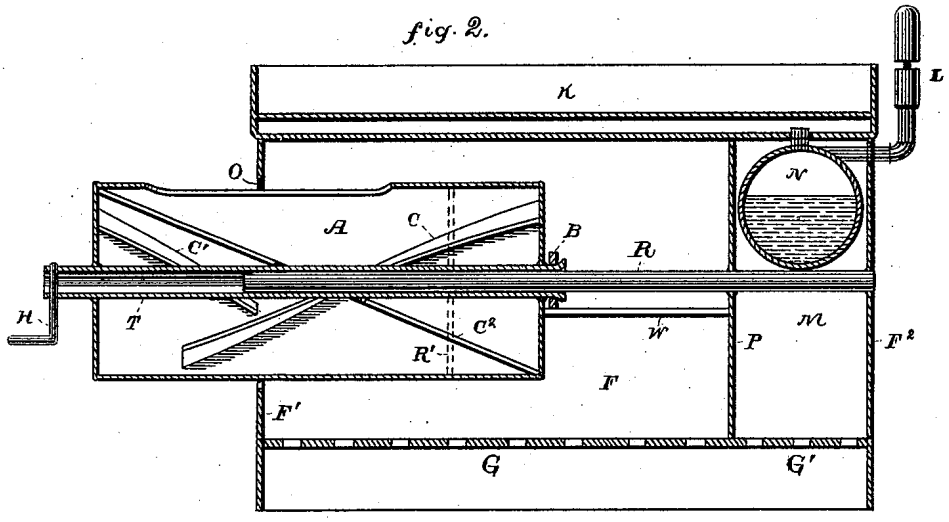



fig. 1.

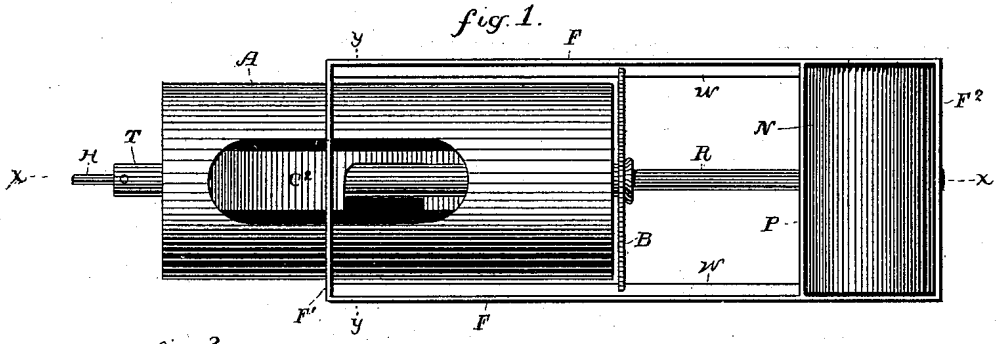



fig. 3.

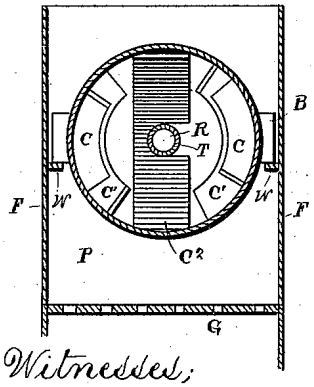
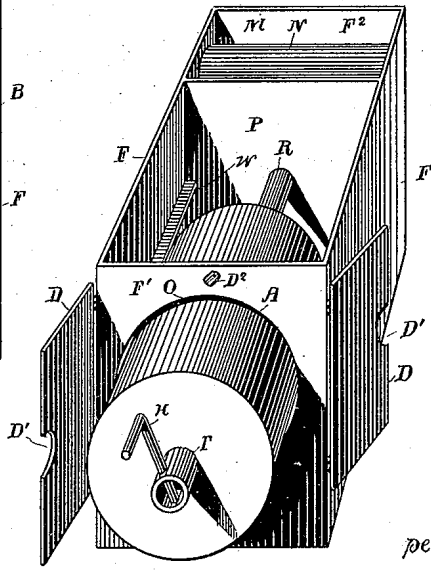



fig. 4.




Witnesses;

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# UNITED STATES PATENT OFFICE.

CHARLES L. COLE, OF BUSHNELL, ASSIGNOR OF ONE-HALF TO WILLIAM A. STINE, OF PEORIA, ILLINOIS.

## COFFEE AND PEANUT ROASTER.

SPECIFICATION forming part of Letters Patent No. 340,289, dated April 20, 1886.

Application filed August 10, 1885. Serial No. 174,057. (No m del.)

*To all whom it may concern:*

Be it known that I, CHARLES L. COLE, of Bushnell, in the county of McDonough, in the State of Illinois, have invented an Improved Coffee and Peanut Roaster; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the annexed drawings, making a part of this specification, in which like letters of reference refer to like parts, and in which—

Figure 1 represents a plan view of the roaster; Fig. 2, a sectional elevation of the same at X X in Fig. 1; Fig. 3, a cross-section at Y Y in Fig. 1; Fig. 4, a perspective view of the invention.

This invention is in the line of coffee and peanut roasters, in which the roasting-cylinder is adapted to be revolved and to be withdrawn horizontally from the furnace.

The particular results which I desire to secure by this construction relate, first, to an improved means for adapting the roasting-cylinder to be withdrawn from the furnace; second, to an improved stirrer for the roasting-cylinder; and, third, to a steam-generator.

My means for enabling the roasting-cylinder to be withdrawn from the furnace consists, essentially, in mounting said cylinder upon a horizontal rod held rigidly at one end alone.

My improved stirrer consists of reverse spiral ribs affixed to the interior cylindrical surface of the roaster, and of the combination with these of diagonal webs.

My means for increasing the steam generation of the boiler which runs the steam-whistle and warming-tray consists in arranging said boiler at one end of the furnace between the end wall and a partition separating the same from the roasting-cylinder.

In the drawings, F F are the lateral walls of the furnace, and F' F² the end walls thereof. Through the end wall F' is a circular opening, O, designed to permit the passage through the same of the roasting-cylinder A. Concentric with said opening, but projecting rigidly from the end wall F², opposite thereto, is the rod R, upon which the roasting-cylinder A is mounted. By means of the partition P, separating the roasting-cylinder from the boiler-chamber, said rod R is held with greatly increased firmness. The roasting-cylinder A can be mounted directly upon the rod R by means of suitable holes made through the ends of said cylinder, and to support the cylinder when drawn almost out of the furnace a diametrical prop, R', can be secured in the cylinder, as shown in Fig. 2; but I find it to be much better to provide a tubular hub, T, for the cylinder, in which said rod R may slide. The outer end of said tubular hub is prolonged somewhat beyond the end of the cylinder, and to said projecting extremity is secured the crank-arm H. My usual mode of securing said crank-arm in place is by passing it partially through the tubular hub, as shown in Fig. 2. Said tubular hub and roasting-cylinder being rigidly fastened together, the turning of said crank-arm revolves the roasting cylinder also. By means of this telescopic arrangement of the hub and rod the roasting-cylinder A can be almost entirely withdrawn from the furnace and still be supported horizontally.

To keep the roasting cylinder in place in the furnace, and also to prevent the escape of heat from the latter, I hinge the half-doors D to the outside of the end wall F', making the semicircular notches D' in the edges of said doors, for the purpose of leaving room for the hub T to project through the same and bring the crank-arm H to the outside. A button, D², secures the two doors in place when shut.

Through the side of the roasting-cylinder A is an opening closed by a suitable door or slide, for the insertion and withdrawal of the coffee or peanuts.

To enable the rotation of the cylinder A to more thoroughly mix its contents, I have designed the stirrer constructed as follows: Upon the concave interior of the roasting-cylinder I affix in pairs two or more incomplete spiral ribs, C, one of which extends from one end of the cylinder to within a short distance of the opposite end. The other rib, C', is shorter and extends from the cylinder end not touched by the other in an opposite spiral almost to said former rib. The cylinder being revolved, the coffee or peanuts are taken up by said ribs and rolled toward their approximate junction, at which point a part of the berries are permitted to pass through, while the remainder, as the cylinder continues to revolve, are rolled back

again and finally spilled over the edges of said ribs. By means of this construction a quantity of peanuts is constantly being broken up into unequal masses, and thereby more thoroughly mixed and stirred. To increase this mixing of the berries, I secure within the cylinder A the diagonally-diametrical webs $C^2$, cut away partially at the center of each to make room for the hub T, as shown in Figs. 2 and 3.

When the roasting-cylinder is almost withdrawn, and is supported by the rod R, there is some little strain on said rod, especially when the roaster is a large one. To diminish said strain, I form horizontal ways W on the interior of the side walls, F, and adapt the cross-bar B, to the center of which the hub T is secured, to rest its ends upon said ways W. In this way, as the roasting cylinder is withdrawn its weight, instead of being entirely supported by the rod R, is upheld more or less by said cross-bar B. Said cross-bar is secured to the rear end of the tubular hub T by having the latter inserted through an opening in said bar and flanged so as to permit it to readily revolve, but to be held irremovably therein. By its contact with the end wall $F'$ said cross-bar prevents the entire withdrawal of the roasting cylinder A, for it is only necessary for the cylinder to be pulled far enough out to bring its door to the outside of the furnace.

To provide steam for warming the tray in which the roasted peanuts are kept, I secure within fire box or chamber M, between the partition P and end wall $F^2$ the cylindrical boiler N, from which extends a steam-pipe to the double bottom of said warming-tray. Directly under said boiler N, within the fire-chamber M, and but a few inches from the bottom thereof, is placed a grate upon which to build the fire for raising steam in said boiler. Thus the operator can at his pleasure raise steam to blow the whistle and to keep the peanuts warm without firing directly under the roasting-cylinder. The intensity of heat required for keeping up sufficient steam-pressure to operate the whistle being considerably greater than that usually required for the roasting of the peanuts, there would otherwise be great danger of burning the peanuts, as well as a lack of economy in the use of fuel.

I am aware that prior to my invention peanut-roasters have been constructed in which the roasting-cylinders were adapted to be withdrawn horizontally from the furnace; but, so far as I am aware, none have been constructed to slide upon a rigidly-projecting rod, as is mine.

What I claim as my invention, and for which I desire Letters Patent, is as follows, to wit:

1. In a coffee and peanut roaster, the combination, with the furnace having an opening through one end thereof, the rod projecting rigidly from the end thereof opposite to said opening, the tubular hub loosely mounted upon said rod, and the roasting-cylinder fixed on said hub, of the ways W, fixed to the lateral walls of said furnace parallel to said rod, and the cross-bar B, loosely secured to said tubular hub and having its ends resting upon said ways, substantially as specified.

2. In a coffee and peanut roaster, the combination of the furnace having one or more auxiliary furnace-chambers, the steam-boiler in one of said chambers, the warming-tray situated upon the furnace, and a pipe for conveying steam from the boiler to the tray, substantially as and for the purpose specified.

3. In a coffee and peanut roaster, the combination of the furnace having the auxiliary furnace-chamber, the steam-boiler in said chamber, the warming-tray located upon said furnace, the whistle, and pipes for conveying steam from said boiler to said tray and whistle, as and for the purpose set forth.

4. In a coffee and peanut roaster, the combination of the furnace having an opening through one end thereof and the transverse partition near the other end of the furnace, of the rod passing through said partition, and fixed to the adjacent end of the furnace, and having no other support, and the roasting-cylinder mounted upon said rod, as and for the purpose specified.

5. The combination, with the roasting-cylinder, of the incomplete spiral ribs A A′, as and for the purpose specified.

In testimony that I claim the foregoing invention I have hereunto set my hand and seal this 27th day of July, 1885.

CHARLES L. COLE. [L. S.]

In presence of—
E. K. WESTFALL,
HENRY STIEBEL.