(No Model.)

# O. E. DAVIDSON.

## COFFEE ROASTER.

No. 345,370. Patented July 13, 1886.

Fig. 1.

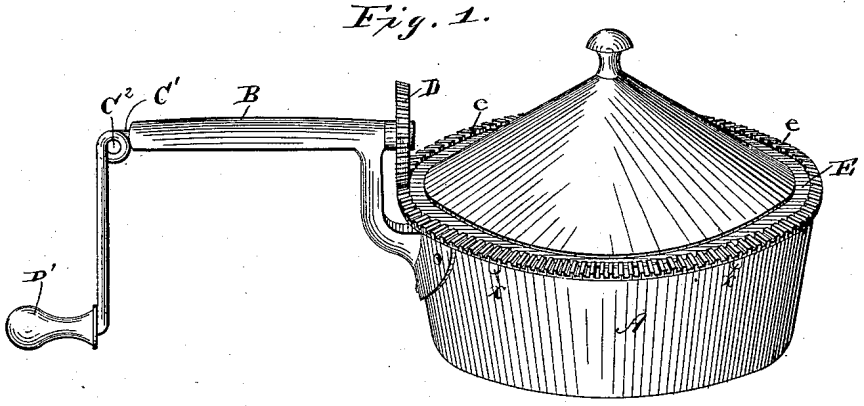


Fig. 2.

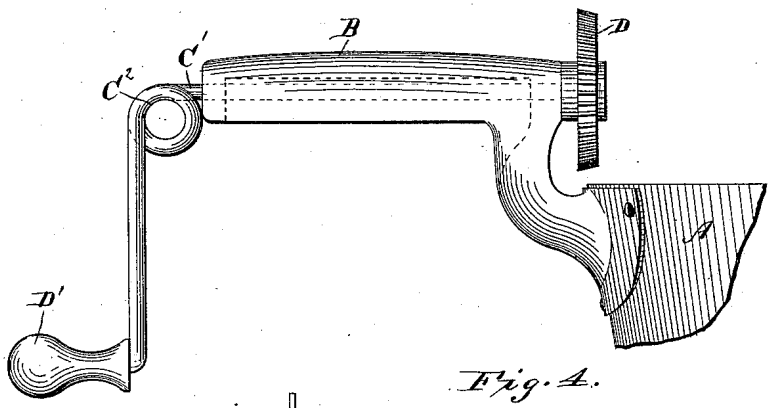


Fig. 4.

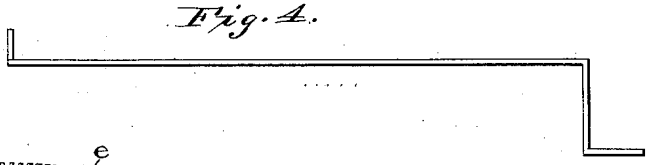

Fig. 3.

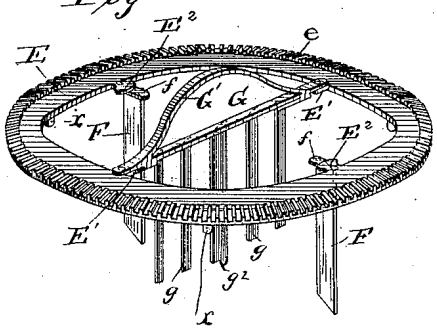


Fig. 5.


Witnesses.
Chas. R. Burr.
A. J. Stewart.

Inventor.
Otis E. Davidson
by Church & Church
his Attorneys.

# UNITED STATES PATENT OFFICE.

OTIS E. DAVIDSON, OF NASHVILLE, TENNESSEE.

## COFFEE-ROASTER.

SPECIFICATION forming part of Letters Patent No. 345,370, dated July 13, 1886.

Application filed December 10, 1885. Serial No. 185,254. (No model.)

*To all whom it may concern:*

Be it known that I, OTIS E. DAVIDSON, of Nashville, in the county of Davidson and State of Tennessee, have invented certain new and useful Improvements in Coffee-Roasters; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the figures and letters of reference marked thereon.

My invention has for its object to improve the construction of that class of coffee-roasters particularly adapted for domestic use, and in which the coffee is stirred during the operation of roasting; and it consists in a certain improved construction which I will now proceed to describe.

In the drawings, Figure 1 is a perspective view of the complete roaster with the cover in place. Fig. 2 is a view of the pan or receptacle with the operating handle and gear attached; Fig. 3, a view of the stirring frame and teeth, and Figs. 4 and 5 views of details. Similar letters of reference indicate the same parts.

A represents the receptacle or pan, provided with a handle, B, of metal, and secured thereto in any suitable manner. This handle B is preferably cast hollow, with bearing portions at each end for the shaft C′, which passes longitudinally through it, the latter having upon its inner end the small gear-wheel or pinion D, and at its outer end the crank or handle D′ for rotating it. At the end of the shaft C′ where it projects through the handle D is provided a loop, $C^2$, preferably made in the shaft itself, which is usually constructed of coarse wire, and this loop, it will be observed, serves, by reason of the spring in the metal, to cause the pinion to bear snugly against the inner end of the handle, and thus prevent any motion longitudinally of the shaft, and having also another object, to be hereinafter explained.

E represents the frame to which the stirring devices are attached, consisting of a cast-metal ring with an outside diameter slightly greater than that of the pan A, and provided on its upper side with gear-teeth *e*, corresponding to those on the pinion D, and on its under side with four lugs or ears, *x*. Projecting from the inside of this ring are four lugs, E′ $E'^2$ $E'^2$, to which the stirring-teeth are secured.

F F are two broad stirring-teeth, constructed, as shown in Fig. 4, with the lug *f* at their upper ends, and adapted to be secured to the lugs $E^2$ $E^2$ by a small screw. These teeth are inclined, so that when the frame E is rotated to the right they will tend to throw the material toward the center.

G represents a rake or stirrer secured by small screws at the ends to the lugs E′ E′ in the frame, composed of a horizontal portion, a handle, G′, and the teeth *g*, preferably five in number, and inclined so as to throw the material away from the center, as shown. The central tooth is provided in one side of its center with a lug or projection, $g^2$, which forms the pivot or bearing for the stirring device to turn upon, and, if desired, a slight depression may be formed in the center of the pan A for it to enter, and thus keep the device centered.

The operation is as follows: The coffee to be roasted or corn to be popped is placed in the pan, and the stirring-frame placed over, with the teeth *f* in engagement with the pinion D and the lugs *x x* on the under side against the sides of the pan. A cover, H, may be placed over, resting upon the stirring-frame, if desired. When the handle D is rotated, the stirring-frame will be rotated through the pinion D, and the fingers *f* and *g* will thoroughly agitate the material, the former tending to throw it toward the center and the latter away from the same, so that as long as the handle is rotated the material will be kept in motion and prevented from burning.

If it should become desirable or necessary for the operator to occupy a position distant from the utensil, I provide a long supplemental shaft, I, preferably of wire, having a crank, *i*, at one end and a hook, *i′*, at the other, adapted to be inserted in the loop $C^2$ in the pinion-shaft C′, so as to rotate it.

When the operation of roasting is finished, the cover H can be removed and the whole stirring device removed by means of the handle G′, leaving the pan A to be used for any purpose desired, the pinion D being removed away from the edge of the pan and out of the way.

It will of course be understood that my in-

vention can be used not only for roasting coffee. but also for popping corn, parching meal, or, in fact, for cooking anything which requires stirring.

I claim as my invention—

1. The combination, with the pan having the handle, of the shaft supported in bearings therein and the pinion on the end of the shaft, and the removable stirring device adapted to be placed within the pan and operated from the said shaft, whereby the stirring device can be removed, when desired, without disturbing the shaft, substantially as described.

2. The combination, with the pan having the handle, the shaft having its bearings therein, and the pinion mounted on the shaft, of the removable stirring device consisting of the frame having the gear-teeth on its periphery and the stirring teeth on its under side, substantially as described.

3. The combination, with the pan and the handle, the shaft mounted in the latter and having the pinion and crank thereon, of the frame having the gear-teeth on its upper side engaging with the pinion, and the series of stirring-teeth mounted on the frame, one of the teeth near the center having a stud or projection forming the bearing on which the frame rotates, substantially as described.

4. The combination of the ring-frame having the gear-teeth thereon, the internally-projecting lugs, the two stirring-teeth F F, secured to the latter, and the frame G, having the handle and the stirring-teeth thereon, also secured to two of said lugs, substantially as described.

5. The combination, with the shaft having the pinion thereon and the loop at its outer end, of the supplemental shaft having the crank and the hook for engaging the loop on the shaft and forming an extension of the latter, substantially as described.

OTIS E. DAVIDSON.

Witnesses:
G. C. ANDERSON,
D. W. MOOSE.