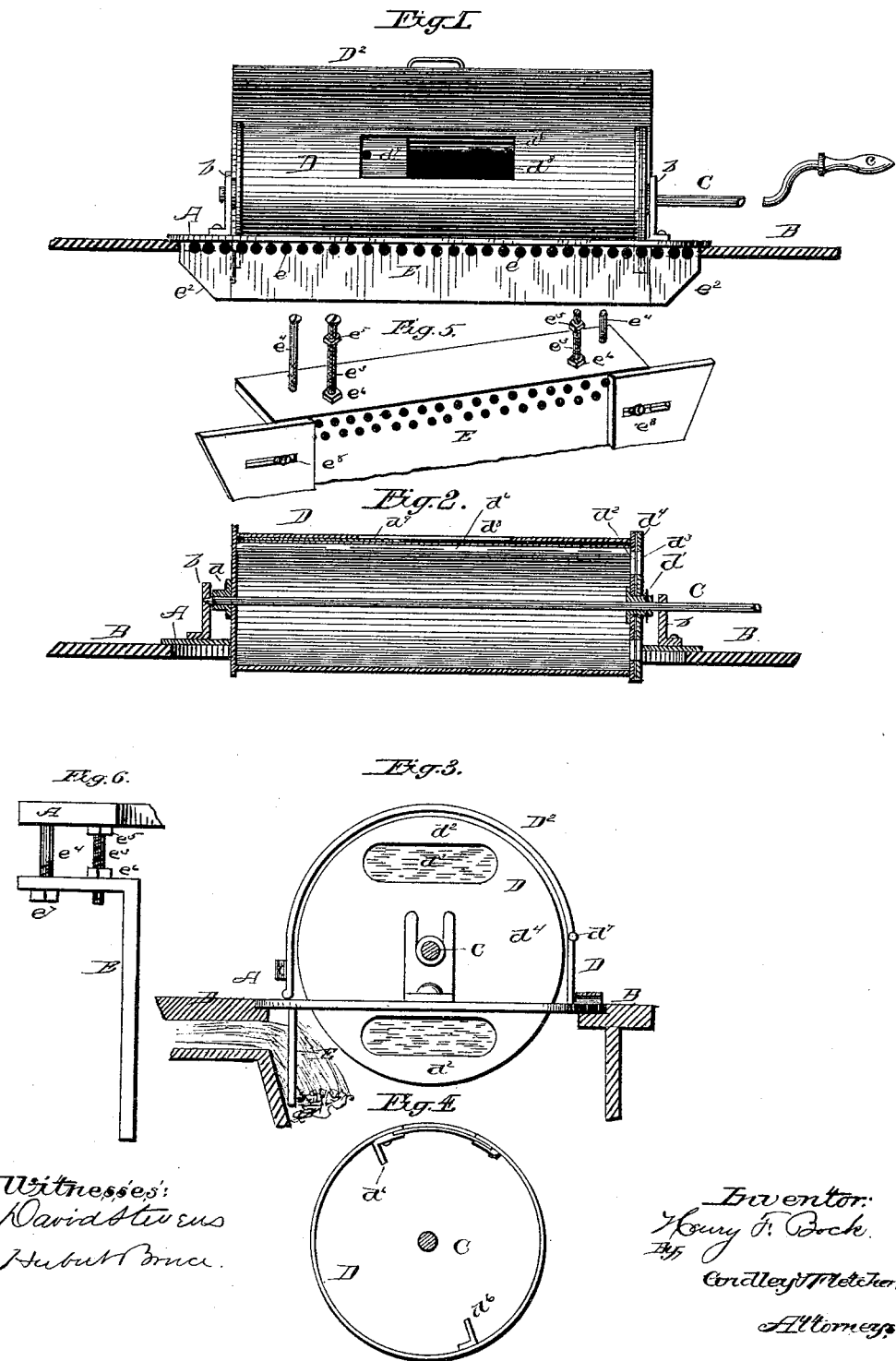


(No Model.)

H. F. BOCK.  
COFFEE ROASTER.

No. 346,459.

Patented Aug. 3, 1886.



# UNITED STATES PATENT OFFICE.

HENRY F. BOCK, OF LANSING, ILLINOIS.

## COFFEE-ROASTER.

SPECIFICATION forming part of Letters Patent No. 346,459, dated August 3, 1886.

Application filed March 6, 1885. Serial No. 152,102. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY F. BOCK, of Lansing, in the county of Cook and State of Illinois, have invented certain new and useful  
5 Improvements in Coffee-Roasters, of which the following is a description, reference being had to the accompanying drawings, in which—

Figure 1 is a back view of said device with the cover partially raised, showing the cylinder beneath and an opening slide for access  
10 thereto. Fig. 2 is a longitudinal vertical sectional view of said cylinder and the supporting-frame. Fig. 3 is an end view showing the application thereof to the fire-box of an ordinary stove, the latter appearing in section.  
15 Fig. 4 is a transverse vertical sectional view of the cylinder in which the construction of the interior is indicated. Fig. 5 is a perspective view in detail, showing a modified form  
20 of a adjustable flange; and Fig. 6 is an end view of the same.

Like letters of reference indicate like parts in the different figures.

The object of my invention is to so construct  
25 a coffee-roaster that when placed over the fire-box of an ordinary stove the heat therefrom may be more effectually utilized than in the ordinary way, while at the same time the mechanism used for said purpose may be adjusted  
30 to stoves of varying sizes. A further object is to permit the inspection of the coffee within said roaster, and thereby ascertain its condition during the process of roasting, which features are hereinafter more particularly described and claimed.

In the drawings, A represents an oblong metal plate, preferably of sheet or cast iron, adapted to rest over the fire-box of an ordinary stove or range, and rest upon the top  
40 plate, B, thereof, thus forming a supporting-frame for the parts hereinafter described. At or near the respective ends of the frame B are rigidly attached upwardly-projecting lugs *b b*, which form supports or bearings for a rod or  
45 shaft, C, provided with a crank, *c*, Fig. 1. Said rod is removably inserted within a cylinder, D, of which it forms the axis, the two being attached as follows: Upon the respective ends of the cylinder are attached, by means of rivets or otherwise, collars or sleeves *d d'*, in the  
50 former of which a screw-thread is cut, into

which the end of said shaft is screwed, as clearly shown in Fig. 2, the end thereof, protruding from said sleeve, being journaled to fit within the bearing formed by the lug *b*.  
55 The perforation within the collar *d'* is smooth, so that the rod C may be loosely inserted therein.

In the end plate of the cylinder D, I make one or more perforations, *d<sup>2</sup> d'*, over which I  
60 place one or more sheets of mica, *d<sup>3</sup>*, secured in place by means of a plate or washer, *d<sup>4</sup>*, having perforations corresponding with those in the end plate, *d<sup>2</sup>*, with which the former are made to conform when a pin, *c'*, is inserted  
65 through the rod C to support the plate *d<sup>4</sup>* in place, a notch being provided in the collar *d'* to receive said pin, and thus prevent the rod C from becoming unscrewed at the opposite  
70 end.

Within the chamber or cylinder I place one or more flanges, *d<sup>5</sup> d<sup>6</sup>*, Fig. 4, which serve to tumble the berries more effectually while being roasted.

A flange, E, having a row of perforations, *e*, at its top, is attached to the plate A at the back, said flange extending down sufficiently to fill the throat of the fire-box F, as clearly shown in Fig. 3, thus causing the products of combustion to pass upwardly in direct contact with the cylinder D, and through the perforations *e*, in order to escape. Wings *e<sup>2</sup> e<sup>3</sup>*,  
75 Fig. 1, are preferably hinged to the respective ends of said flange F, in order that the same may be adjusted to fire-boxes of different  
80 lengths.

Should the part A be constructed from sheet-iron the flange E may be formed from the same piece of metal, the opening caused by the downward bending of said flange constituting  
85 a portion of the opening over the fire-box through which the cylinder D protrudes, the remaining portion of the metal necessary to complete said opening being bent upwardly, as shown at D', Fig. 3, to which a semi-cylindrical  
90 lid, D<sup>2</sup>, of sheet metal, is hinged at *d'* for the purpose of retaining the heat.

An oblong opening, *d<sup>8</sup>*, Fig. 1, may be made in the cylinder for inserting the berries, said opening being closed by a slide, *d<sup>9</sup>*, having  
100 perforations therein, as shown, by which it may be moved back and forth.

In Figs. 5 and 6 I have shown a modification of the construction above described. Instead of making the flange E a part of the frame A, by bending the former downwardly, as described, or attaching it directly thereto, I interpose bolts  $e^3$   $e^4$   $e^5$ , Figs. 5 and 6, the former of which are provided with jam-nuts  $e^6$   $e^7$ , which retain them firmly secured within the plate A, the opposite ends being screwed into the flange E, said bolts being provided with nuts  $e^6$   $e^7$ , adjusted, respectively, as shown, with relation to said flange. Thus it is apparent that by turning said screws and nuts the flange E may be raised or lowered or adjusted to any angle or pitch, as desired, in order to fit the same to fire-boxes, while wings  $e^2$   $e^2$  may be attached thereto at the ends, respectively; and instead of being hinged, as shown in Fig. 1, they may be provided with slots  $e^8$   $e^8$ , through which a stud may be inserted for them to slide upon.

It is obvious that by means of the mechanism described a greater degree of heat may be brought into direct contact with the revolving cylinder, and thus roast the coffee in a shorter time, with less fuel, than by the usual method, while the various stages of the process may be closely watched and accurately determined by means of the mica windows at the end of the cylinder without opening the slide  $d'$ .

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

1. In a coffee-roaster of the class described, the depending flange E, provided with suit-

able perforations,  $e$ , said flange being located beneath and at the back of said roaster, and arranged to close the throat of the fire-pot over which said roaster is placed, whereby the products of combustion are caused to partially circulate around the cylinder, and to pass through said perforations, substantially as and for the purposes set forth.

2. The combination, with a revolving cylindrical coffee-roaster, of the depending adjustable flange E, located beneath and in the rear of said roaster, so as to partially close the throat of the fire-pot over which said roaster is placed, and provided with bolts  $e^3$   $e^4$ , whereby the pitch of said flange may be adjusted to conform to the incline of the back of said fire-pot, substantially as described.

3. A coffee-roaster consisting of a cylinder mounted in suitable bearings upon a plate adapted to be placed over a fire-pot, a depending perforated flange, E, in the rear of said roaster, and arranged to be adjusted in the throat of the fire-pot, a hinged cover to retain the heat around said cylinder, suitable mica windows to admit light within the latter, and interior flanges for tumbling the coffee when said cylinder is revolved, all combined, arranged, and constructed substantially as described.

HENRY F. BOCK.

Witnesses:

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L. BUTTERFIELD.