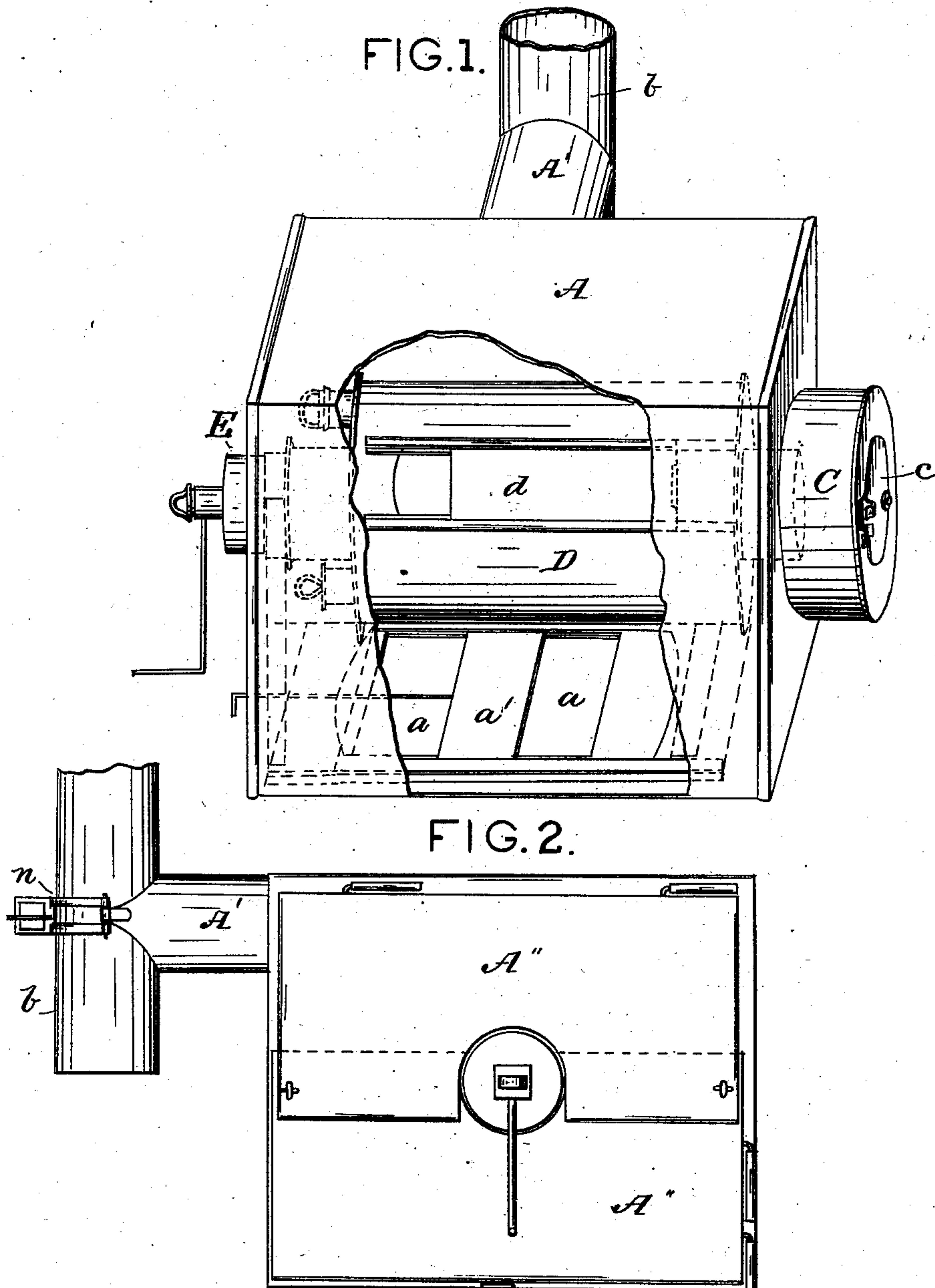


C. L. COLE.  
Coffee-Roaster.

No. 224,392.

Patented Feb. 10, 1880.



WITNESSES

*Sam R. Turner*  
*C. Hodgkin*

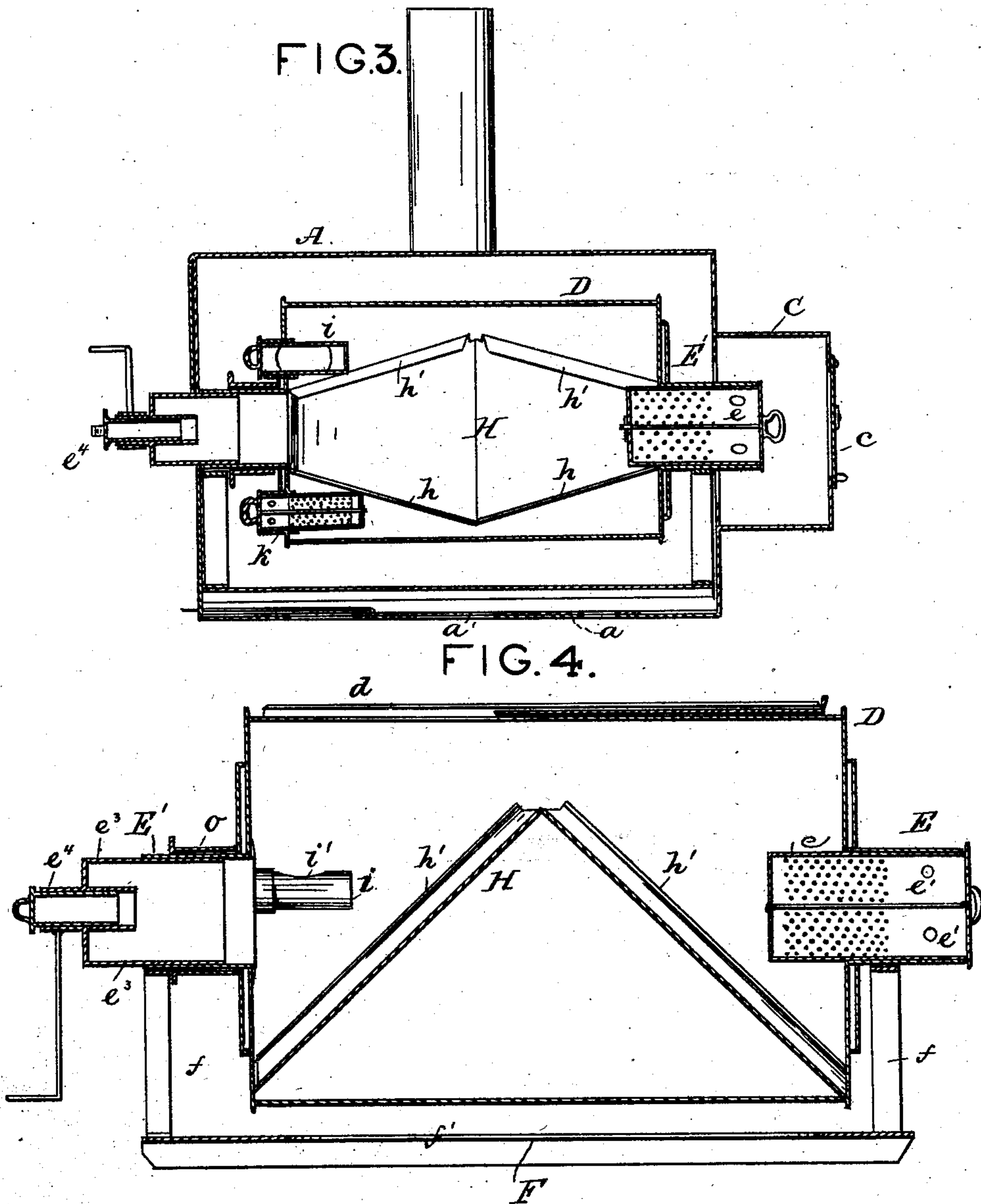
INVENTOR

*Charles L. Cole.*  
*by L. Deane.*  
ATTORNEY

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FIG. 5.

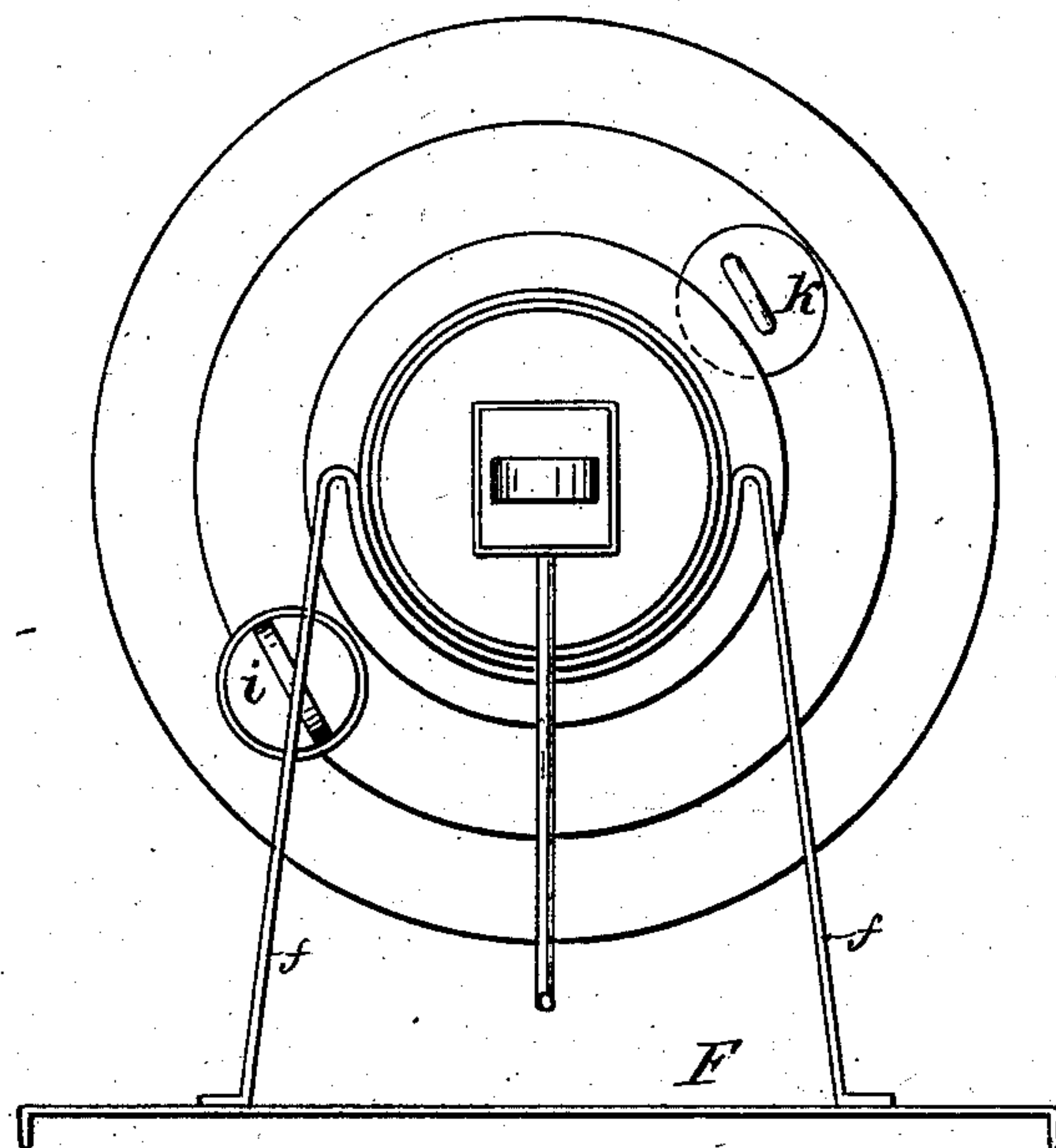
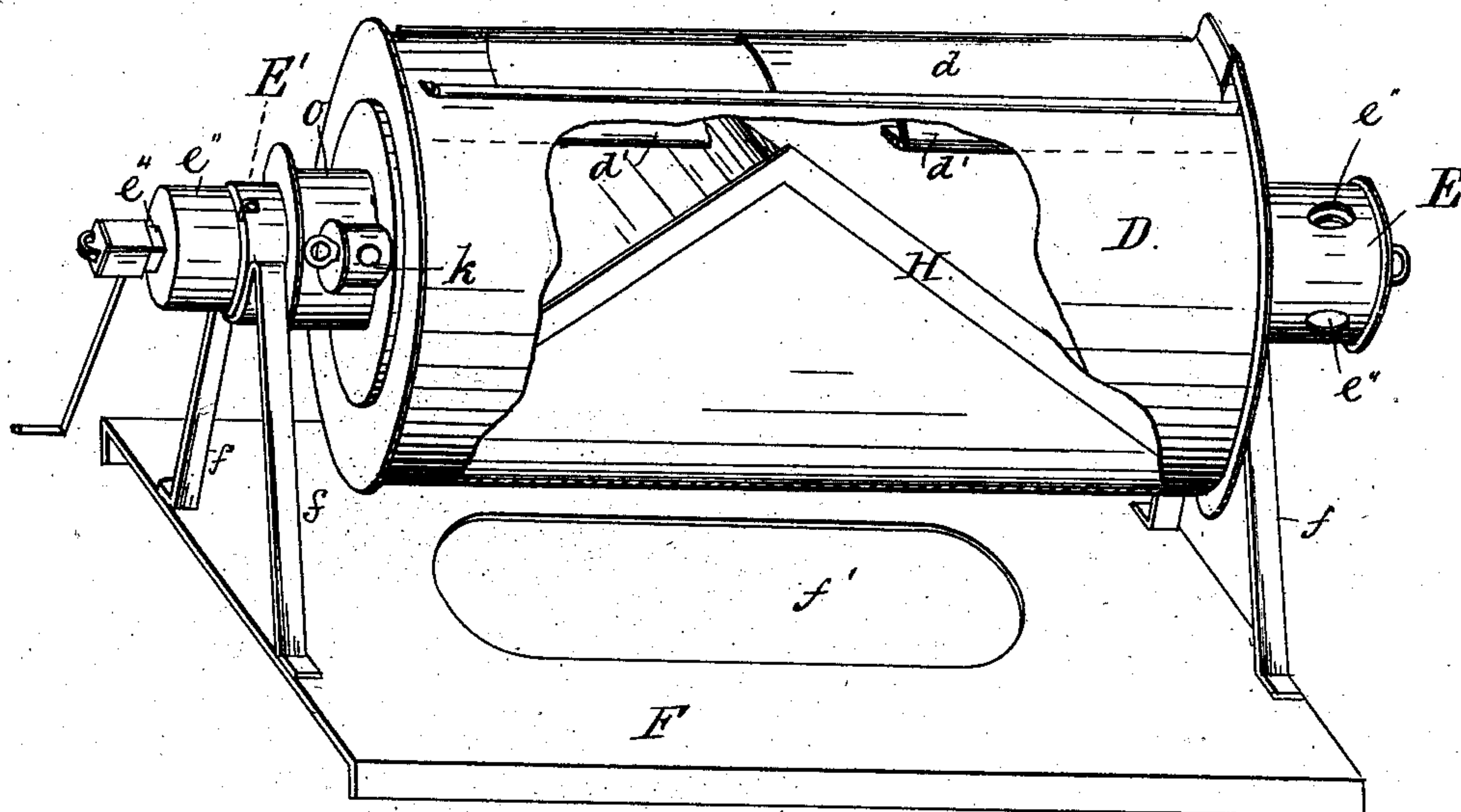


FIG. 6.



WITNESSES

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ATTORNEY



# UNITED STATES PATENT OFFICE.

CHARLES L. COLE, OF BUSHNELL, ILLINOIS, ASSIGNOR OF ONE-HALF OF  
HIS RIGHT TO JOSEPH A. JAMES.

## COFFEE-ROASTER.

SPECIFICATION forming part of Letters Patent No. 224,392, dated February 10, 1880.

Application filed July 3, 1879.

*To all whom it may concern:*

Be it known that I, CHARLES L. COLE, of Bushnell, in the county of McDonough and State of Illinois, have invented certain new and useful Improvements in Coffee-Roasters, of which the following is a specification.

Figure 1 is a perspective view, showing the roaster with its case as in position for use, the walls of the case being broken away to disclose the internal structure of the device. Fig. 2 is an elevation, showing the end of the roaster-case having doors. Fig. 3 is a vertical section nearly in the center of the roaster proper and its case. Fig. 4 is a vertical central section of the roaster proper enlarged. Fig. 5 is an end elevation, showing the roaster proper and its bearings and supporting-plate. Fig. 6 is a perspective view of the roaster proper with portions of the cylinder broken away to show the internal structure.

The object of the present invention is to produce such improvements in coffee-roasters as shall more effectually secure even and thorough roasting of the berry and preserve the aroma of the coffee; and the novelties in the present instance consist more particularly in the details of the construction of the roaster proper and in its combination with its case, all as will now be more in detail set out and explained.

In the accompanying drawings, A denotes the roaster-case, which is adapted to be placed on a stove or suitable heater, and has an opening or openings, *a*, in its bottom or under side, provided with damper or valve *a'*, operated by a handle, by which means the flow of heat into the case can be properly regulated.

To the rear, near the top of the case, is attached an exit-pipe, *A'*, which may communicate with the stove-pipe *b*, and be adjusted thereon by clamp-screw *n*, and have a damper, if desired.

At one end or side of the case is an offset or small chamber, C, having suitable door *c* in its end. This offset is so placed in relation to the end of the roaster proper, D, that through door *c* the cap of the sliding sleeve *e* of the ventilating or regulating chamber E of the roaster may be easily reached and operated.

To the opposite side or end of the case A is

applied suitable door or doors *A''*, which, being opened, allow the plate F, which carries on bearings *f* the roaster D, to be easily put inside or taken out of the case. The plate F has an opening, *f'*, or space cut away in the middle and immediately under the roaster, so that when said plate is in position in the bottom of the case A this space or opening *f'* will come directly over the dampered opening in the lower side of the case A and allow the freest flow of the heat upward.

The bearings *f* may be of any suitable shape and form to support the ends E and E' of the roaster, which ends constitute, in fact, hollow trunnions. In the trunnion E is fitted a sliding sleeve, *e*, having near the outer ends of its cylinder holes *e'*, that can be made to register with corresponding holes *e''* in the circumference of the hollow trunnion E. Its inner end, which projects into the roasting-chamber, is perforated, as is also the inner part of the cylinder adjoining this end. Since this chamber made in this trunnion can be reached through door *c*, it will be very easy to regulate the heat in the roasting-chamber by adjusting the registering-holes *e'* and *e''* so as to admit air when desired.

In the hollow trunnion E' at the other end of this roasting-cylinder is a removable sliding sleeve, *e'''*, of like general structure to the sleeve *e*, above described, in the trunnion E; but *e'''* may preferably have its barrel or walls close or imperforate. As this trunnion projects out through the doors *A''*, this sleeve *e'''* may from time to time be withdrawn with whatever berries it may hold, and thus the progress of the roasting may be discerned from the condition of these berries. In its outer head is a hollow square socket, *e''''*, having a removable cap. To this socket the handle used in turning the roaster may be attached. Air can be admitted inside the roasting-chamber, when desired, by removing the said cap.

At a convenient place in the periphery of the roasting-chamber D is an opening of suitable size, over which is placed a sliding or other door, *d*, and longitudinally inside the cylinder is a flange, *d'*, of suitable width to form a means of disturbing and distributing the grains or kernels of coffee when the cylinder is revolved.



If desired, there may be more than one of these. Under the above-described opening in this cylinder is placed a double incline, H, of metal, which has on one side of each incline a lip, *h*, and a flanged lip, *h'*. These lips make a very sure passage-way for the flow of the berries up and down and to and fro in the revolutions of the roasting-cylinder. It is not intended that the said double incline shall come in contact with the interior of the revolving chamber other than at its feet or ends, where it is secured in position.

In the outer end of the roasting-chamber is the sliding testing-tube *i*, of suitable length to reach well into the chamber, and having its periphery cut away a little at *i'*, so as to show its contents at once on removal; and also in the same end of the said chamber is the ventilating-tube *k*, of like general structure with the sleeve *e* in the other end of the roasting-chamber, but of much less size, which tube can be operated in like manner as *e*, above described.

It may sometimes be of advantage to have a supplemental sleeve, *o*, over the hollow trunnion *E'*, to act as a sort of washer between the bearings *f* and the end of the cylinder, and one may also be placed on the trunnion *E*, if desired.

As thus made and combined the device is a very efficient roaster, the berries will be evenly and thoroughly browned, and the aroma will be surely preserved.

It may be found convenient in constructing the device to have one or both ends of the roasting-chamber detachable, and in other like minor details in mere mechanical points many changes may be made without in the least departing from the aim and scope of the present invention.

Having thus described my invention, what I

consider new, and desire to secure by Letters Patent, is—

1. The case A, having suitable exit-pipe A', doors A'' A'', and openings *a* on its lower side, with dampers *a'*, and chamber or offset C, with door *c*, the whole constructed and arranged substantially in the manner and for the purposes set forth.

2. The roasting-cylinder D, having a suitable opening for admission and discharge, the internal flange or shelf *d'*, and a double incline, H, and testing-tube *i*, and ventilating-tube *k*, constructed and arranged substantially as and for the purposes set forth.

3. The combination of roasting-cylinder D, having hollow trunnions E and E', as described, with the plate F *f'*, having bearings *f*, substantially as and for the purposes described.

4. The combination of the roasting-cylinder D, having trunnions E and E', and plate F, having bearings *f*, with the case A, constructed as described, substantially in the manner and for the purposes set forth.

5. In combination with the roasting-cylinder D, the double incline H, each part of which has lips *h* and flanged lip *h'*, substantially as and for the purposes set forth.

6. The combination of the rotating cylinder D, having hollow trunnions E E', and hollow carrying-socket *e'''*, with sleeve *o*, bearings *f*, and plate F, substantially as and for the purposes set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

CHARLES L. COLE.

Witnesses:

EZRA E. CHESNEY,  
JAMES EDSON.