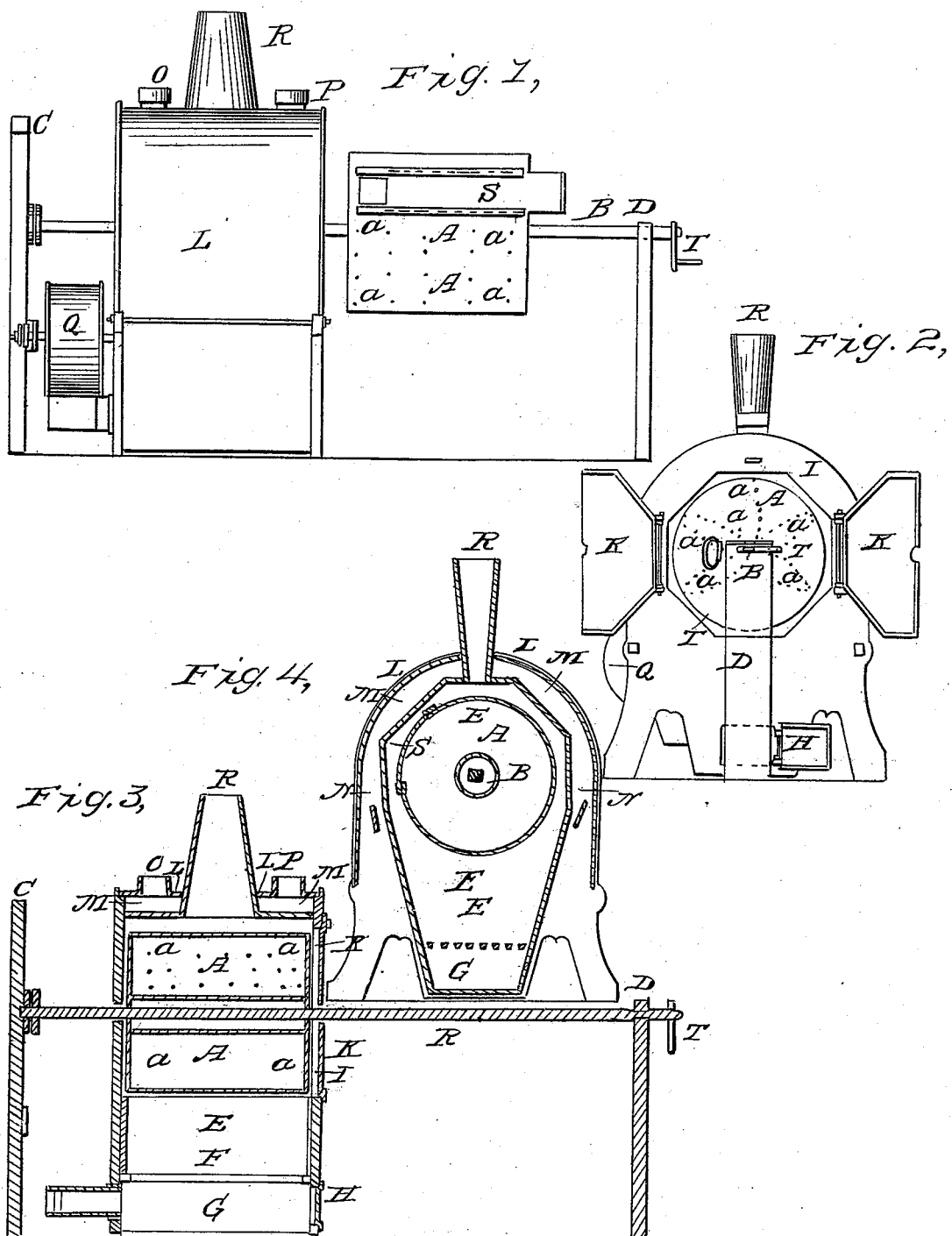


J. W. CARTER.

Coffee Roaster.

No. 4,849.

Patented Nov. 12, 1846.



# UNITED STATES PATENT OFFICE.

JAMES W. CARTER, OF BOSTON, MASSACHUSETTS.

## COFFEE-ROASTER.

Specification of Letters Patent No. 4,849, dated November 12, 1846.

*To all whom it may concern:*

Be it known that I, JAMES W. CARTER, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new or Improved Apparatus for Roasting Coffee or Various Kinds of Grain, &c.; and I do hereby declare that the nature of the same is fully set forth and represented in the following specification and accompanying drawings, letters, figures, and references thereof.

Of the said drawings, Figure 1 exhibits a side or front elevation of my said improved apparatus, Fig. 2 is an end elevation, exhibiting the fireplace doors, Fig. 3 is a central, vertical and longitudinal section, and Fig. 4 is a transverse and vertical section taken through the fireplace and roasting cylinder.

In said drawings, A denotes a hollow cylindrical vessel (made of sheet iron or other proper material) having a long horizontal and square shaft B, extending through it, in the line of its (the vessel's) axis, the said shaft being supported in position by two vertical standards C, D, disposed as seen in the drawings. The vessel or roaster should be made and applied to the shaft so as to be capable of being moved or slid upon the shaft entirely into or out of a furnace or fire chamber E, placed below and made to surround the roaster as seen in the drawings. F is the grate, G the ash pit and H the ash pit door of the said fire chamber. I is a passage way formed through one of the ends of the chamber, and so as to admit of the withdrawal of the roasting cylinder from or its entrance into the chamber. When the said roaster is within the chamber, the said passage I should be closed by doors K, K, properly made and applied to it. The exterior part of the fire chamber E is surrounded by an external case L, which is arranged at a proper distance from it, in order to create an air chamber or space M, entirely or partially around the fire-chamber. N, N, are valves or doors, which open so as to admit the external air of the room in which the apparatus may be placed, to freely enter the space M, and to pass out of one or more discharge pipes O, P, leading into the external atmosphere, or into any apartment or apartments it may be desirable to warm by the surplus heat. On closing all the induction and eduction passages of the air chamber M, the air within it will operate to prevent the too rapid es-

cape of heat from the sides of the furnace, particularly when the fire is low or there is little fuel in the fireplace.

A fan or revolving blowing apparatus may be applied to the fire chamber, so as to force a stream of air into the furnace, in order to increase the effect of the fire. The position or external view of the same is denoted at Q. There is nothing in the use or application of such that I consider to make any part of my invention; therefore, a further description of it, I do not deem necessary.

R denotes the escape pipe or flue of the furnace. It leads from thence into a chimney or into the atmosphere as circumstances may require. The position of the roaster, when removed or withdrawn from the furnace is represented in Fig. 1 by red lines. It has a suitable opening made through it, the said opening being provided with a sliding door s. By means of the same, the coffee may be discharged from the roaster, after being roasted, or it (the roaster) may be supplied with fresh coffee to be roasted. Small holes a, a, &c., should be made through the roaster in sufficient number to allow of the escape of the vapors and volatile matters which escape from the coffee, while undergoing the process of being roasted.

The shaft B and roaster A (when the latter is within the furnace) are to be put in revolution on their common axis by means of power applied to a crank T on the shaft, or in any other proper manner.

I am aware that a cylindrical roaster and furnace have been combined together and long known and used for roasting coffee, &c., and therefore I make no claim to such contrivances, but

That which I do claim is—

The combination with the furnace and roasting vessel, of the air space or chamber M, surrounding it, the same being for the purpose of preventing the too rapid escape of heat from the furnace, when its (the air chamber's) induction and eduction air openings or passages are closed, as well as for other purposes, whenever desirable to so convert it, as above set forth.

In testimony whereof, I have hereto set my signature, this twenty sixth day of June A. D. 1846.

JAMES W. CARTER.

Witnesses:

R. H. EDDY,  
S. W. WALDRON, Jr.