

(No Model.)

W. F. BEECHER & R. S. WEST.

PORTABLE COFFEE ROASTER.

No. 271,770.

Patented Feb. 6, 1883.

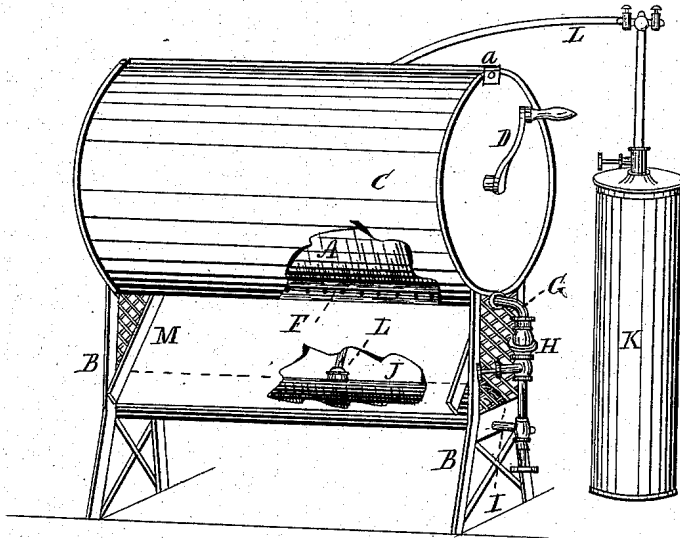


Fig. 1.

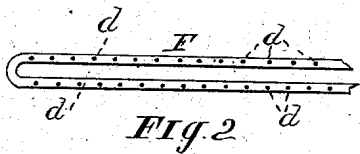


Fig. 2.

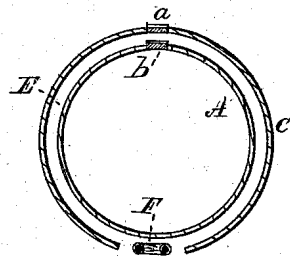


Fig. 4.

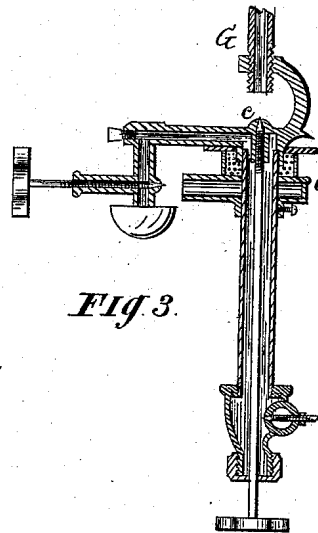


Fig. 3.

Witnesses.

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# UNITED STATES PATENT OFFICE.

WILLIAM F. BEECHER AND ROBERT S. WEST, OF CLEVELAND, OHIO.

## PORTABLE COFFEE-ROASTER.

SPECIFICATION forming part of Letters Patent No. 271,770, dated February 6, 1883.

Application filed November 22, 1882. (No model.)

*To all whom it may concern:*

Be it known that we, WILLIAM F. BEECHER and ROBERT S. WEST, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and Improved Portable Coffee-Roaster; and we do hereby declare that the following is a full, clear, and complete description thereof.

The object of this invention relates to a portable coffee-roaster in which coffee is roasted by the application to the roasting-cylinder of the heat of a vapor or oil burner, the said cylinder being so constructed and the application thereto of the vapor-burner being such as to constitute a portable coffee-roaster adapted for the use of stores, hotels, and families.

A full description of the coffee-roaster is substantially as follows:

For illustration and for more full description reference will be had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents a perspective view of the roaster. Figs. 2 and 4 are detached sections. Fig. 3 is a vertical transverse section of a vapor-burner preferably used in this invention.

Like letters of reference refer to like parts in the several views.

The coffee-roaster above alluded to consists of a revolving cylinder, A, Fig. 1, a transverse section of which is shown in Fig. 4. Said cylinder is mounted on a suitable frame, of which B are the ends thereof.

C is a shell or jacket inclosing the cylinder, and in the heads of which the cylinder is journaled and revolved from the outside by a crank, D. The jacket referred to is secured to the top of the said frame, forming the upper connection of the two ends of the frame, as seen in Fig. 1. A part of the jacket is represented as broken away, that the cylinder A may be seen.

Between the cylinder and the jacket is an annular space or chamber, E, Fig. 4, in which the heat from the burner is confined for heating the cylinder. In the top of the jacket is a sliding door, a, through which to obtain access to the cylinder in which the coffee is being roasted. Access is had to the inside of the cylinder through a sliding door, b, Fig. 4, corresponding to the sliding door a in the jacket.

Directly under the cylinder, and longitudi-

nally therewith, are a pair of perforated pipes, F. A detached view of the pipes showing a plan view of them is shown in Fig. 2, in which it will be seen that two of the ends are connected by an elbow, but which, however, may be two separate pipes with closed ends. The two opposite ends of the pipes terminate in a pipe, G, passing through the end of the frame and put in connection with a vapor-burner, H, attached to the end B of the frame.

The lower part of the burner, by means of a pipe, I, is in connection with an oil-reservoir, J, arranged longitudinally under the heating pipes or burner F, between the ends of the frame. The oil in the reservoir is forced up therefrom to the burner by an air-pressing apparatus, K, connected to the reservoir by a hose, L. An elevated reservoir may be used instead of one below the burner; so that the oil may flow therefrom to the burner by gravitation. It is preferred to have the oil-reservoir in the place shown in the drawings, as it makes the entire structure compact and easily portable.

For extra safety there is interposed between the burner-pipes F and the reservoir an inclined apron of sheet metal, M, which also serves as a chute down which the roasted coffee is discharged from the cylinder into a receptacle placed thereunder for that purpose, but which is not shown in the drawings.

We do not confine ourselves to any particular kind of vapor-burner; but the one shown in Fig. 3 is preferred, its construction and practical operation being similar to vapor-burners in ordinary use, and which we do not claim; hence a description thereof is not considered essential in this place.

The burner alluded to is connected to the heating-pipes F of the roaster by means of the pipe G, or by other suitable pipe-connections, as the style of the vapor-burner used and its position in relation to the heating-pipes F and roaster may require to adapt it thereto, which, as will be apparent, is a matter requiring more or less modification, as the style of vapor-burner to be used is simply a matter of choice. The burner, when lighted, which is done in the usual way, vaporizes the oil in and about the generator O, which passes therefrom, through the needle-valve c, into the tube G, thence to the heating or combustion pipes F, where it is

burned as it issues from the perforations *d*, immediately under the roasting-cylinder, which is therein roasted as the cylinder is revolved. By means of the jacket the heat from the jets  
5 of the heating-pipes is retained in the annular space E around the cylinder, so that it is quickly and evenly heated for roasting the coffee, which being done, the slide *a* of the jacket is drawn out to gain access to the cylinder, the  
10 slide in which in like manner is drawn out and the cylinder so turned as to discharge its contents upon the apron M, down which it slides into a box for its reception.

Two heating or combustion pipes are shown  
15 in the drawings; but more or less may be used, as the size of the roaster may require.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. In coffee-roasters, in combination with the

perforated heating-pipes F and inclined plane  
20 or chute M and frame B, a vapor or gasoline burner, substantially as set forth, and for the purpose specified.

2. A portable coffee-roaster consisting of the  
rotating cylinder and jacket C, forming there-  
25 with an annular space or chamber, E, slides *a*  
*b*, perforated heating-pipes, and inclined apron  
arranged below said pipes, frame B, and a  
vapor or gasoline burner, substantially as de-  
scribed, and for the purpose specified. 30

In testimony whereof we affix our signatures  
in presence of two witnesses.

WILLIAM F. BERCHER.  
ROBERT S. WEST.

Witnesses:

W. H. BURRIDGE,  
J. H. BURRIDGE.