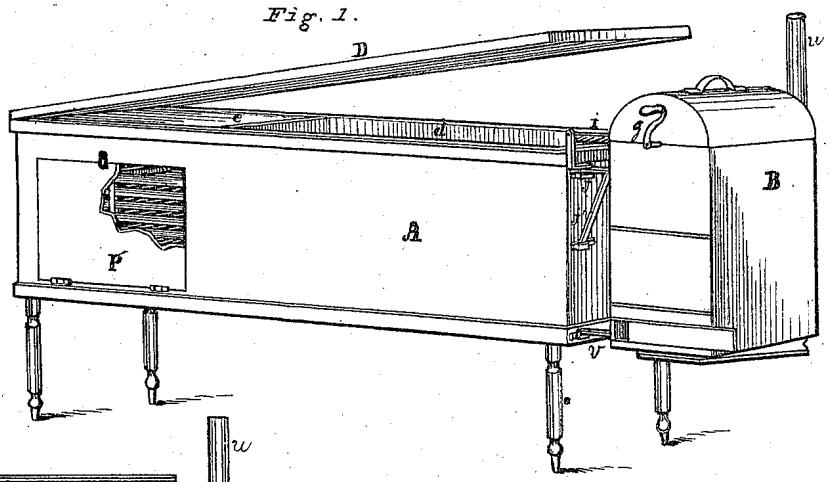
W. L. DALBEY.

Coffee-Roaster.

No. 128,715. Patented July 9, 1872.

Fig. 1.



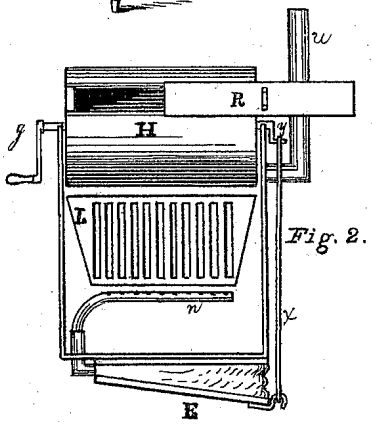
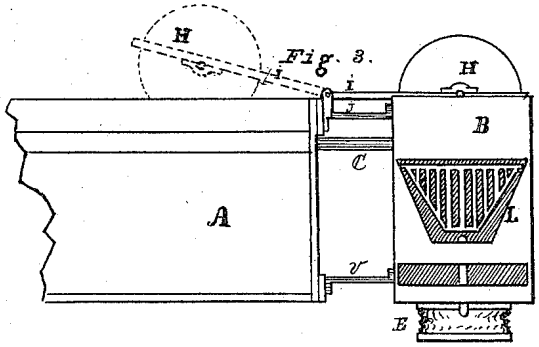


Fig. 2.

Fig. 3.



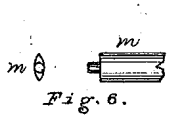


Fig. 6.

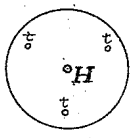


Fig. 7.

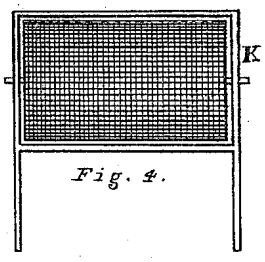


Fig. 4.

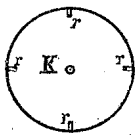


Fig. 5.

WITNESSES.

J. D. Fleming
Frank Mackie

INVENTOR.

William L. Dalbey

UNITED STATES PATENT OFFICE.

WILLIAM L. DALBEY, OF RICHMOND, INDIANA, ASSIGNOR OF ONE-HALF HIS RIGHT TO DANIEL C. COOPER, OF SAME PLACE.

IMPROVEMENT IN COFFEE-ROASTERS.

Specification forming part of Letters Patent No. 128,715, dated July 9, 1872.

Specification describing certain Improvements in Roasters, invented by WILLIAM L. DALBEY, of Richmond, in the county of Wayne and State of Indiana.

My invention relates to certain improvements in the construction and operation of devices for roasting pea-nuts, pop-corn, &c., in connection with structures or stands for retailing the same, but which may also be used for roasting coffee and for other like household purposes. More particularly, my invention relates to the manner in which the cylinder or drum in which the roasting is done is supported, being on hinged arms, so that it may be readily reversed from a position over the furnace to one over the pan in the wooden structure, by which the removal of the roasted contents of the cylinder are facilitated. My invention also relates to the kinds of cylinders or drums in which the roasting is done, and to bars and ribs running longitudinally within said cylinders, by which the contents of the cylinder are kept agitated as the latter is made to revolve during the operation of roasting, thus insuring an evenly-roasted article. One of the cylinders is made of sheet metal, (as usual,) and is designed to be used for roasting pea-nuts, coffee, &c.; the other (there being two) is reticulated, being designed for the purpose of roasting pop-corn, said cylinders being interchangeable.

Figure 1 is a perspective view of the apparatus. Fig. 2 is an end view of the roasting devices, with the front of the furnace removed to show the cylinder, &c. Fig. 3 is a longitudinal section of a portion of the apparatus. Fig. 4 is a longitudinal section of the reticulated cylinder. Fig. 5 is an end view of the reticulated cylinder. Fig. 6 shows sections of the bars used in the pea-nut and coffee cylinders, to agitate the contents. Fig. 7 is an end view of the pea-nut and coffee cylinder.

A represents the body of the structure, it being constructed as usual in the case of pea-nut roasters. B represents the furnace and roasting devices. The latter are secured to the part A by means of the bars J J′ and V, near the ends of the furnace, which are attached to said furnace, and, having hooked or bent ends, are hooked into staples on the end of structure A. The interior of the structure, as roasters are usually constructed, is covered by a shallow pan, which rests within the top of said structure, occupying all the top space not occupied by the roaster. With my invention a pan, *d*, occupies the greater portion of the top space, leaving sufficient room at one end, within which the furnace may be set when it is desirable to pack the apparatus for transportation. The size of the furnace is such as to admit of its being placed within the structure A and the lid D closed, thus closing the whole apparatus within the structure A, and making it more portable than roasters as heretofore constructed.

The space at the end of pan *d*, when the roaster is in use, is covered by a temporary lid, *e*.

The lid D is hinged at the end opposite the furnace, and may thus be turned out and made to rest on supplementary legs, to be used as a stand for candies, &c., if desired.

L represents the grate in which the fire (charcoal or coke) is made. E represents the bellows for increasing combustion, it being attached to the bottom of the furnace. A tube, *n*, extends up through the bottom of the furnace and along beneath the grate, having its end closed, and being perforated beneath said grate, as shown in Fig. 2, for the discharge of the blast. The bellows is operated by means of a crank, *y*, on the end of the roasting-cylinder, which is connected with a hook on the bellows by means of rod *x*. Rods, oval in their cross-section, as shown in Fig. 6, are placed longitudinally in the pea-nut and coffee cylinder, their ends being pivoted in the heads of said cylinder, and occupying positions as indicated by perforations *t t t*, Fig. 7. These bars *m* serve to stir the contents of the cylinder as the latter is rotated, and, by reason of their being pivoted and oval in shape, they are made to turn on their pivots by the weight of the contents of the cylinder pressing on them, thereby preventing clogging or burning through the contents lodging on or between the bars and the side of the cylinder, as is the case when the bars are rectangular in form and rigidly secured to the cylinder.

Within the reticulated cylinder K are ribs, *r*, as shown in Fig. 5, by which the pop-corn is carried partly around as the cylinder revolves, and thus kept stirred.

In Fig. 3, the manner of supporting the cylinders on hinged arms I, so that they may occupy a position over the furnace or be changed readily to a position over the pan *d*, is fully shown. A crank, *g*, is provided as a means of turning the cylinder.

In Fig. 1, a door, P, is shown, with a portion broken away to show the interior, which door is designed to be placed opposite the pan *d*, so that candy-trays may be packed away beneath said pan when it is desirable to pack up the apparatus.

R represents a slide in the cylinder, by which access is had to the interior of the latter. C, Fig. 3, represents a pipe connecting with the furnace B by an ordinary pipe connection, and extending into the interior of the structure A through the end of the latter, and terminating beneath pan *d*, by which heat is conveyed from the furnace to the chamber beneath said pan for the purpose of keeping pea-nuts warm in cold weather, the pan *d* and lid *e* so closing the top of the structure as to form a tight chamber of its interior.

In packing the apparatus, the pipe *c* may be disconnected from the furnace and slid into the interior of the structure, and thus out of the way.

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

1. The combination of the hinged arms I, cylinder H, (or K,) structure A, and furnace B, substantially as shown and described, and for the purpose set forth.

2. The pivoted oval-shaped bars *m*, in combination with cylinder H, as and for the purpose set forth.

WILLIAM L. DALBEY.

Witnesses:
J. D. FLEMING,
FRANK MACKE.