

No. 879,731.

PATENTED FEB. 18, 1908.

R. BURNS.
ROASTER FOR COFFEE, &c.
APPLICATION FILED OCT. 19, 1907.

Fig. 1.

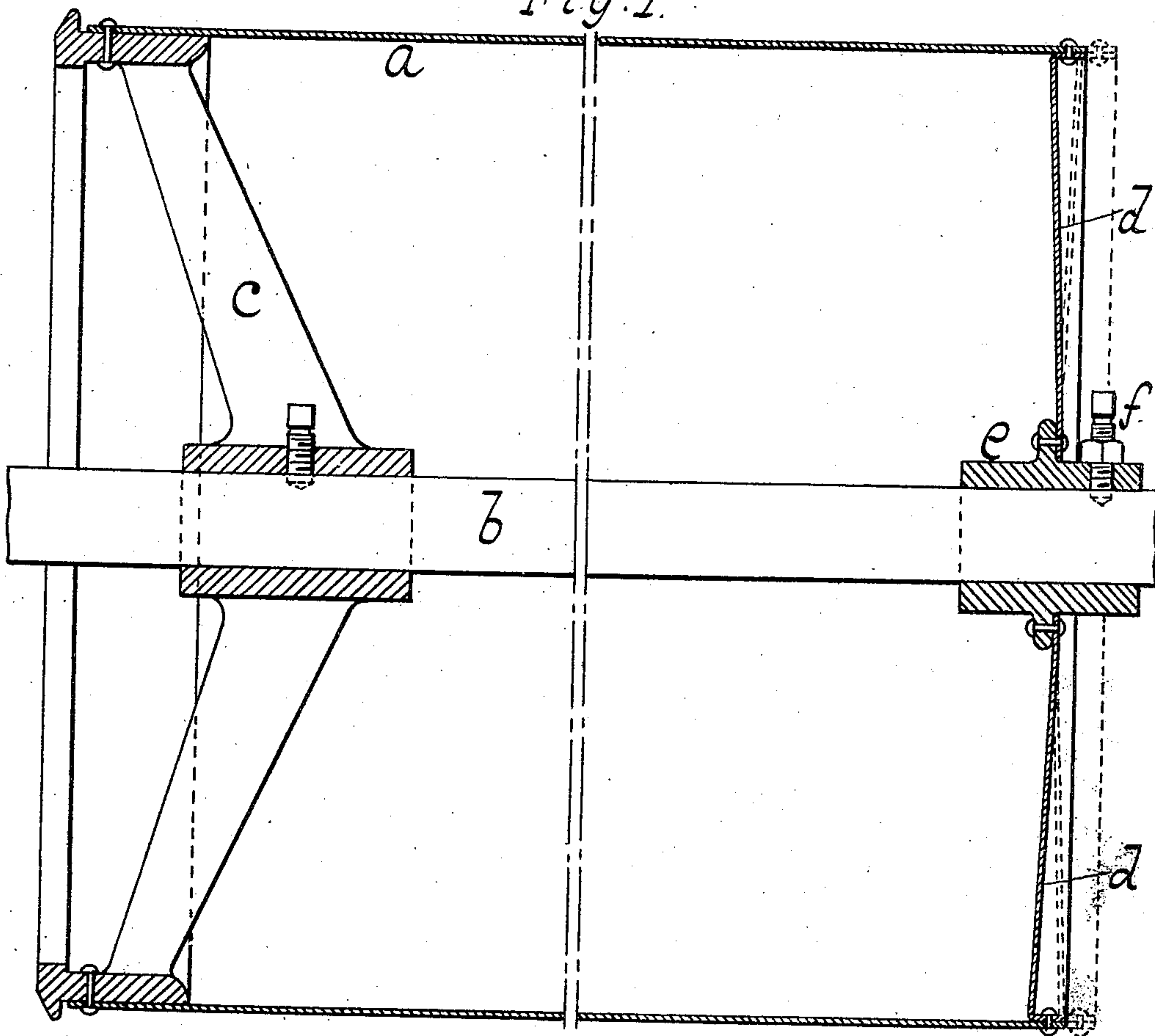
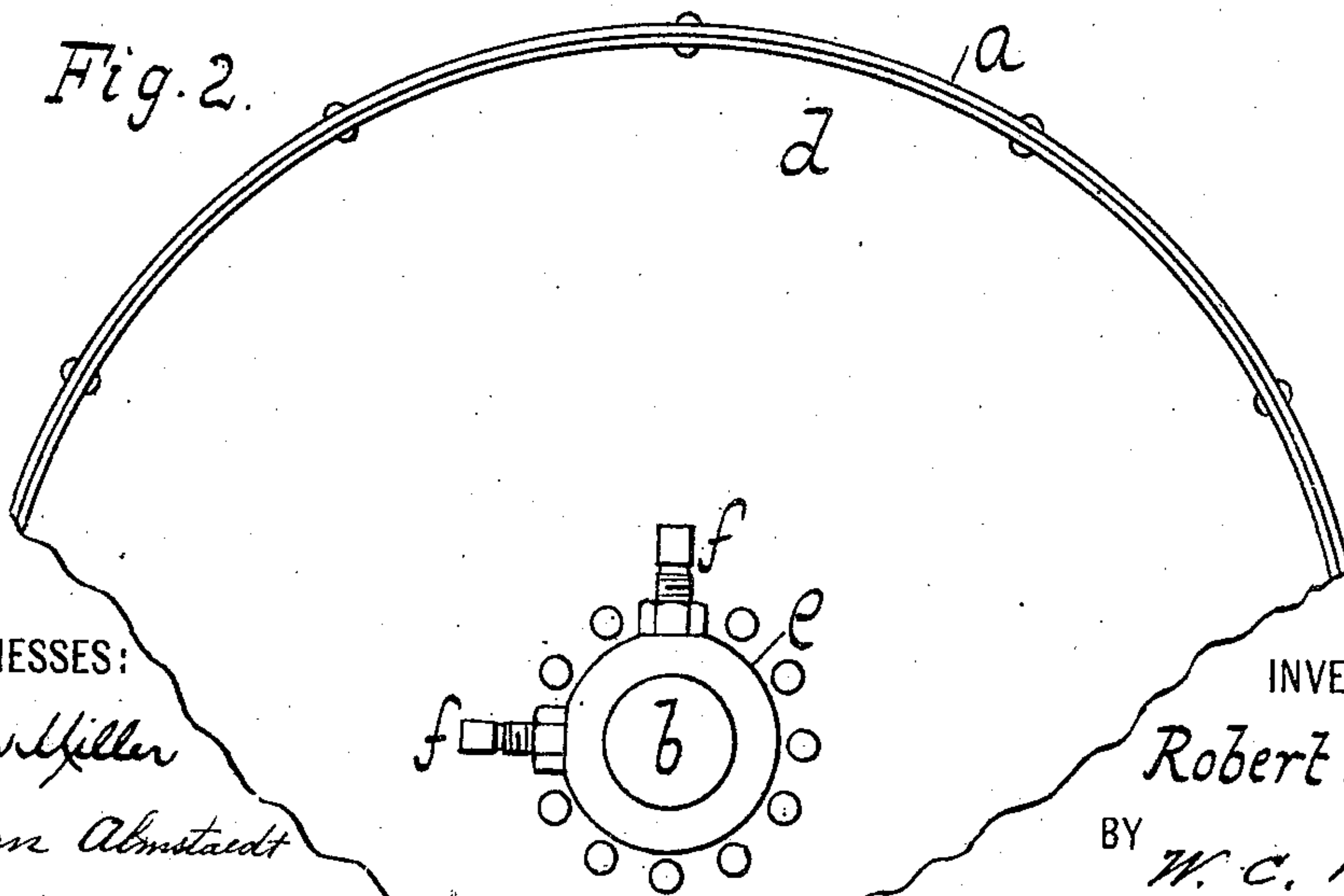


Fig. 2.



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ROASTER FOR COFFEE, &c.

No. 879,731.

Specification of Letters Patent.

Patented Feb. 18, 1908.

Application filed October 19, 1907. Serial No. 398,280.

To all whom it may concern:

Be it known that I, ROBERT BURNS, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented new and useful Improvements in Roasters for Coffee, &c., of which the following is a specification.

This invention relates to a roaster for roasting various articles as for example coffee, cereals, peanuts and so on.

The object of this invention is to avoid the strain caused by unequal or non simultaneous heating and cooling of the shell and the shaft of the roaster. As the shell heats and cools in advance of the shaft an unequal expansion and contraction results which must be taken care of or will cause injury to the shell of the roaster.

This invention is set forth in the following specification and claims and illustrated in the annexed drawing in which:—

Figure 1 is a longitudinal section of a roaster embodying this invention. Fig. 2 is a rear view of Fig. 1.

In this drawing is shown a shell *a* of a coffee roaster or like device. The front of the shell or where goods are fed in or discharged from is secured to the shaft *b* by a spider or arms *c* or in any suitable manner. The rear of the shell is secured to a back head *d* which is flexible or springy so that as the shell expands and contracts this back head or its rim portion can yield or spring correspondingly one way or another. Buckling or injury of the shell or other part is thus guarded against.

The back head has a hub *e* secured to shaft *b*. For example two screws or bolts *f* placed ninety degrees apart have been found to give a good hold. Such screws run through the hub and into recesses in the shaft and secured by lock nuts will suitably fix or hold the hub.

When the parts are being assembled the hub *e* is secured to the shaft at a point somewhat back or outside of the plane of the rim or circumference of the back head. The back head is thus somewhat sprung or given a somewhat dome shape. When the shell *a* is heated and expands sufficiently the rim of the back head is carried back or outward and the back head assumes a somewhat cup or concave shape. Such yielding of the back head acts as a preventive against breaking or buckling.

The back head is advantageously sprung to such a degree that by the extremes of the expansion and contraction of the shell the back head or rather its rim is respectively carried to an equal degree either side of the plane or points of attachment of the back head to its shaft or hub. This manner of securing the back head to the shaft or at such point of the shaft has been found satisfactory.

The hub is shown flanged for attachment of bolts *g* securing the center or hub portion of the back head. This flange has its outer rim rounded to avoid cutting or injuring the back head as it springs back and forth.

What I claim is:—

1. A roaster cylinder for coffee and other material having a shaft or axle, a front fixed to the shaft and a flexible back head to allow for and take up expansion and contraction of the shell, said back head having a hub fixed to the axle or shaft of the roaster.

2. A roaster with a shaft, said roaster having a front fixed to the shaft and a flexible back head also fixed to said shaft, said back head having its center or hub drawn outward and fixed to the shaft so as to allow the rim portion of the back head to readily respond to expansion of the shell.

3. A roaster for coffee and other material having a flexible back head to allow for and take up expansion and contraction of the shell, said roaster having a shaft and the back head having a hub secured to the shaft.

4. A roaster for coffee and other material having a flexible back head to allow for and take up expansion and contraction of the shell, said roaster having a shaft and the back head having a hub secured to the shaft, said hub having a flange with rounded edge portion for attaching the back head and avoid injury to the latter when springing back and forth.

5. A roaster cylinder having a shaft the cylinder having its heads or end portions fixed to the shaft and one of the end portions made flexible to give under expansion and contraction.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

ROBERT BURNS.

Witnesses:

CHRISTIAN ALMSTAEDT,
EDWARD WIESNER.