

No. 817,674.

PATENTED APR. 10, 1906.

L. SCHMIDT.
COFFEE ROASTER.

APPLICATION FILED SEPT. 22, 1905.

2 SHEETS-SHEET 1.

Fig. 1.

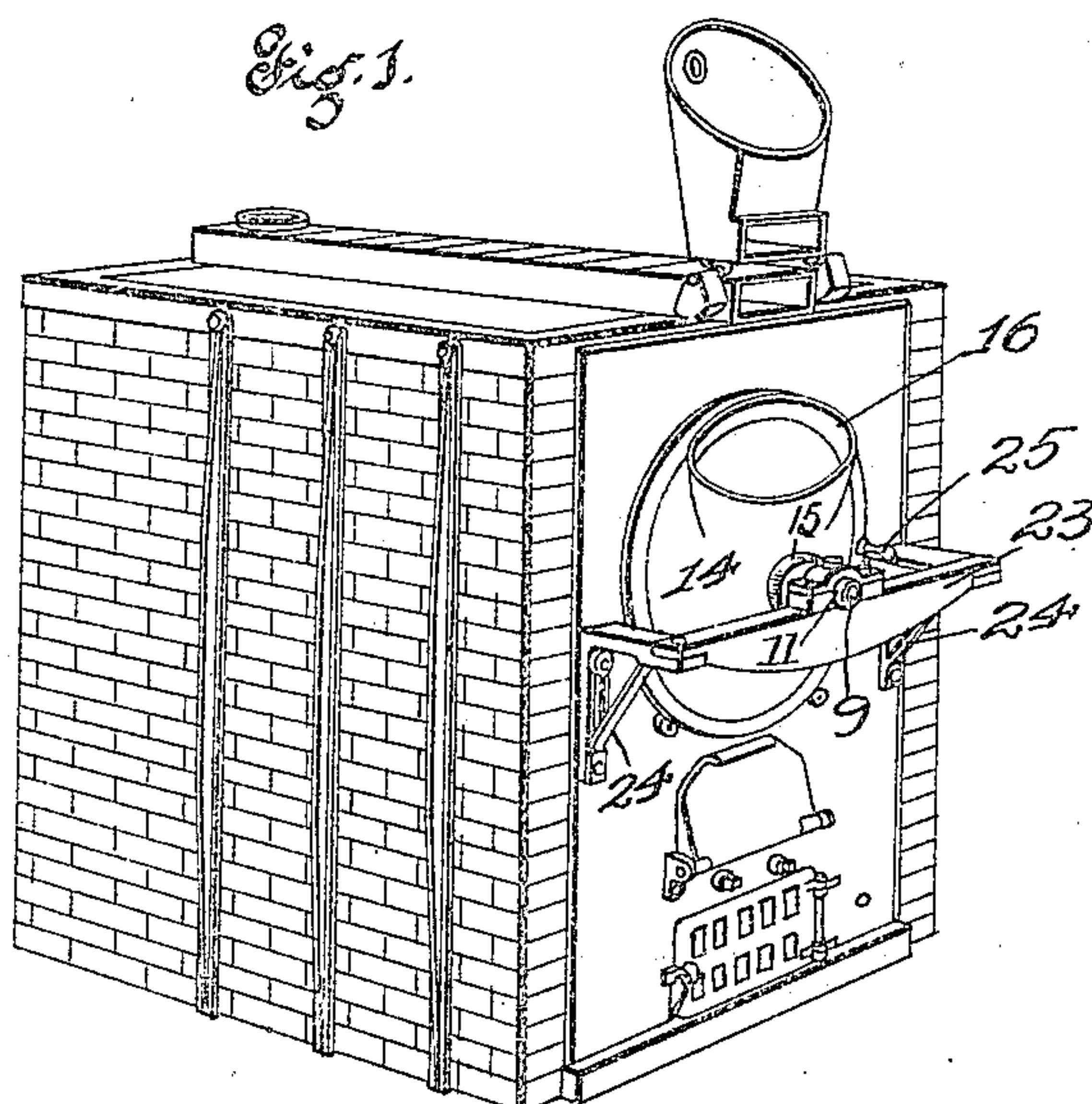
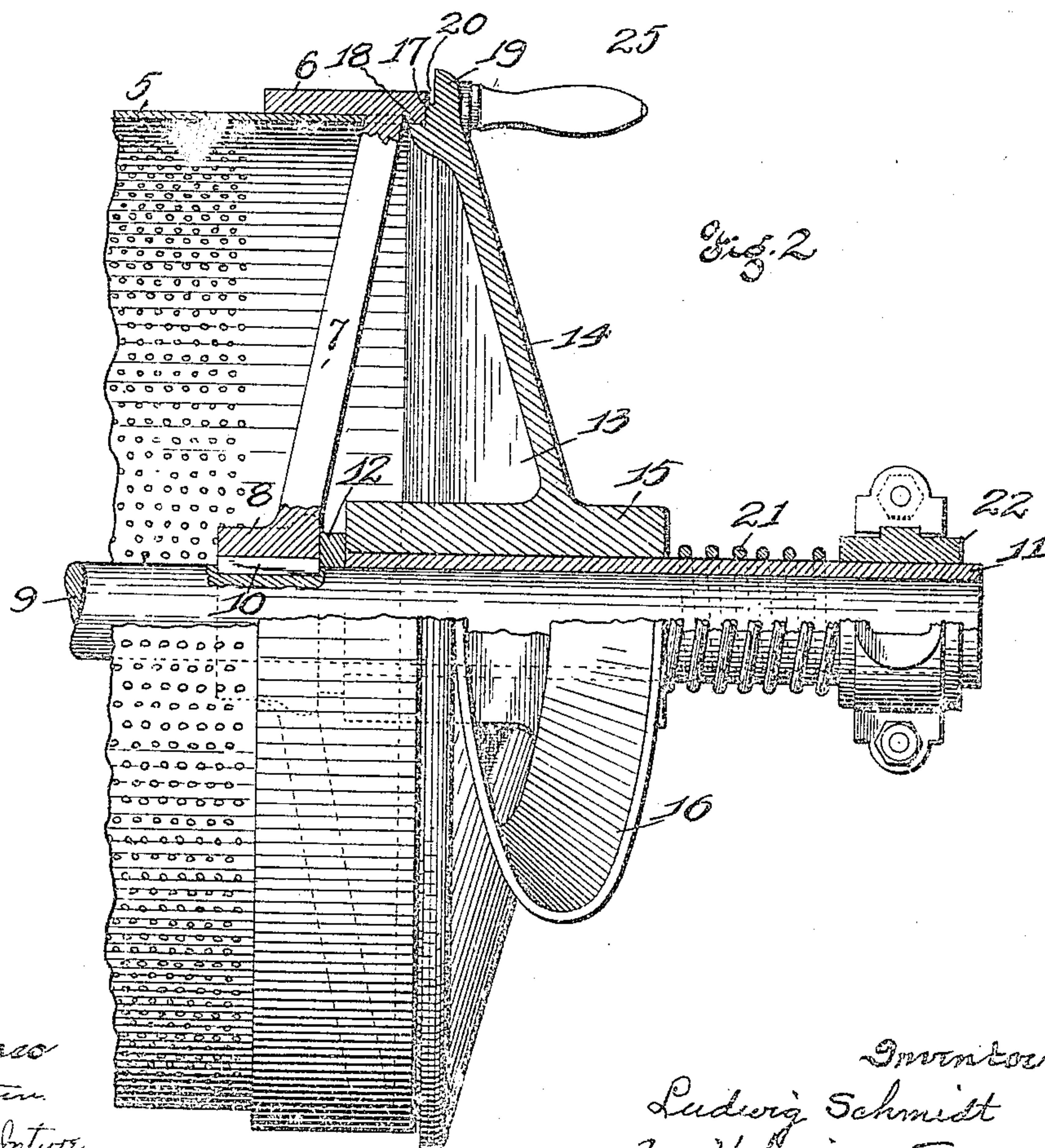


Fig. 2.



Witnesses
W. Stein
L. A. L. McIntyre

Inventor
Ludwig Schmidt
By Hopkins & Evers Attys.

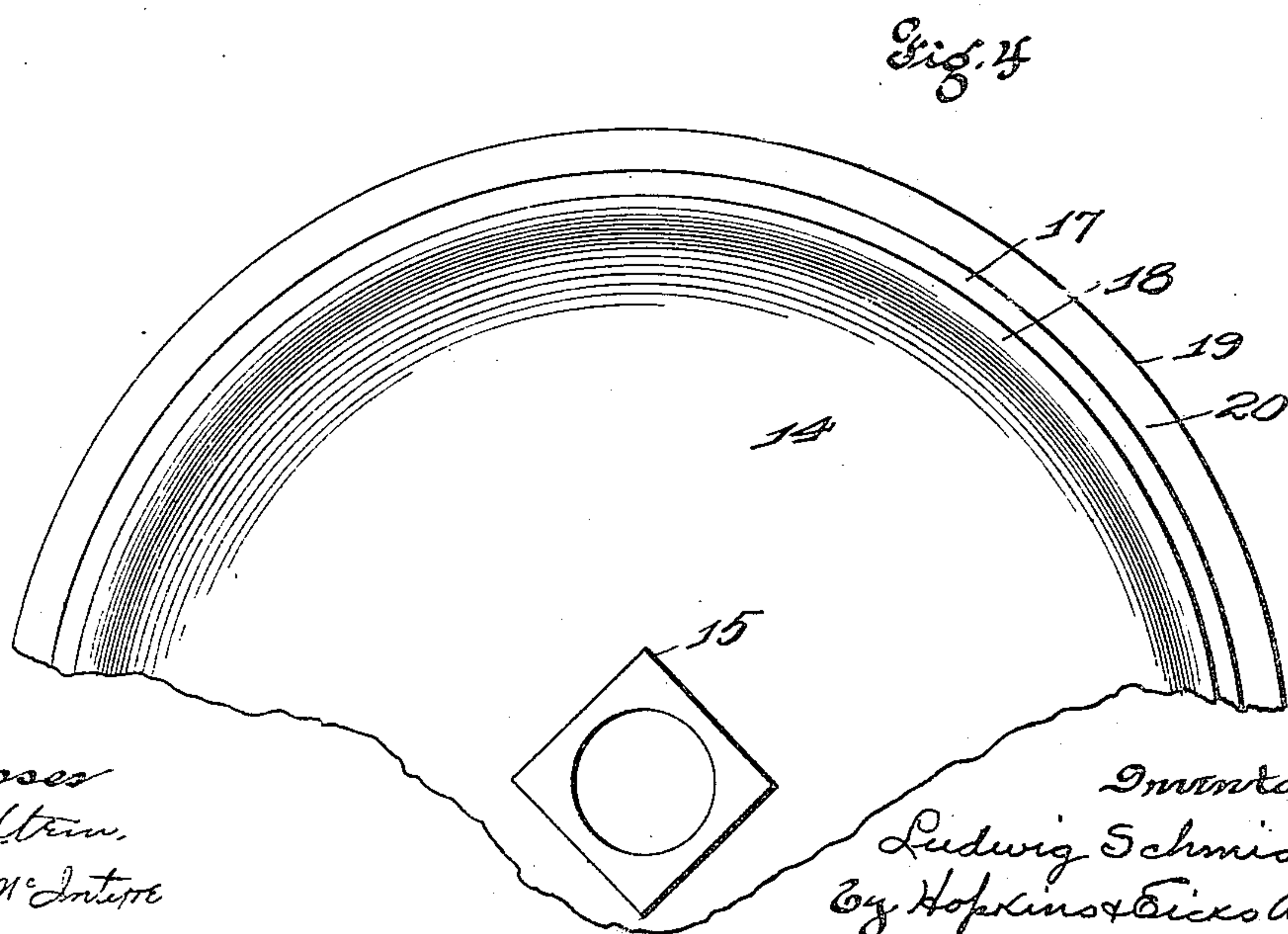
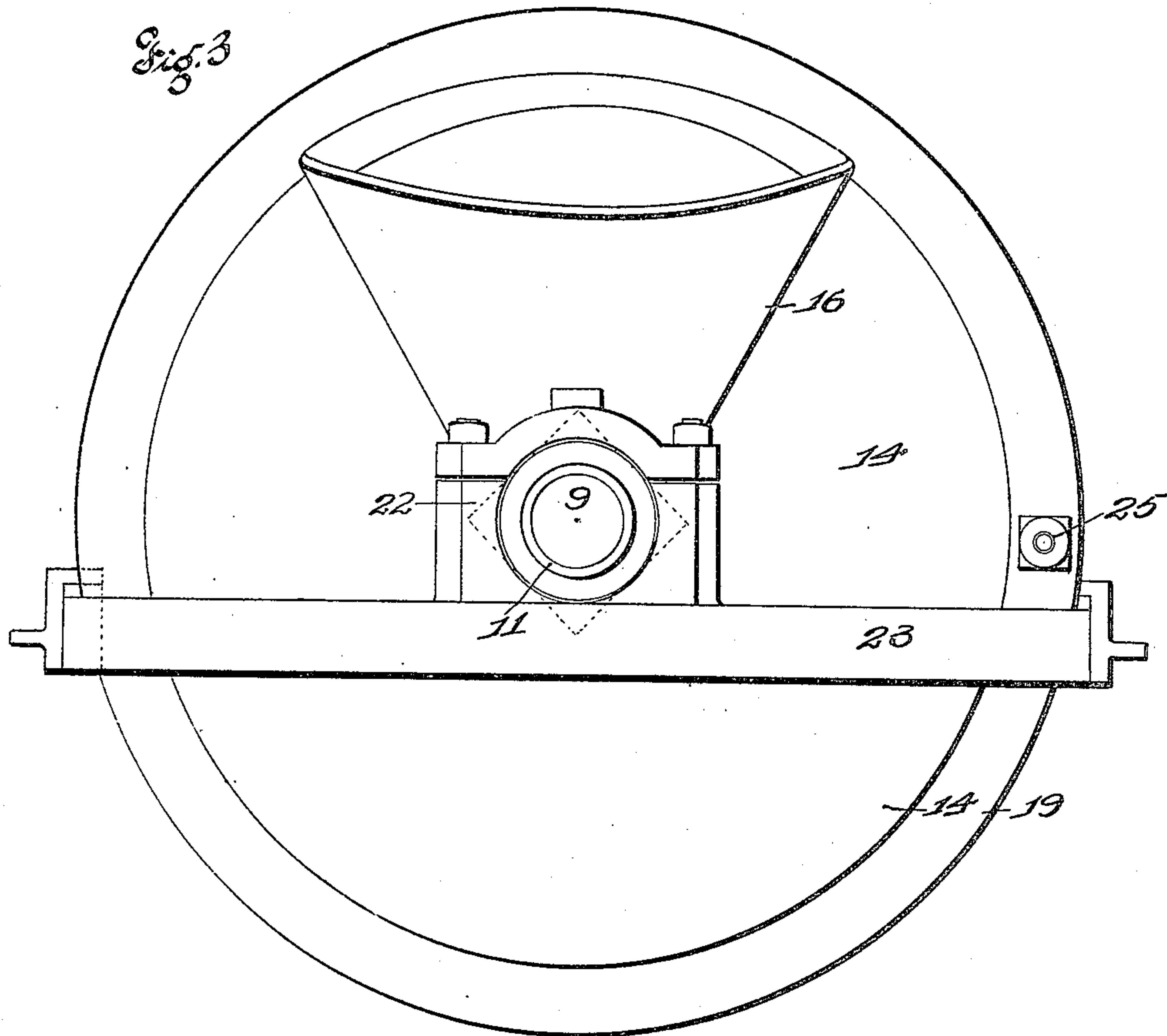
No. 817,674.

PATENTED APR. 10, 1906.

L. SCHMIDT.
COFFEE ROASTER.

APPLICATION FILED SEPT. 22, 1905.

2 SHEETS—SHEET 2.



Witnesses
W. L. Stein.
L. A. L. M. Intore

Inventor
Ludwig Schmidt
By Hopkins & Hicks Attys

UNITED STATES PATENT OFFICE.

LUDWIG SCHMIDT, OF ST. LOUIS, MISSOURI, ASSIGNOR TO ESSMUELLER
MILL FURNISHING COMPANY, OF ST. LOUIS, MISSOURI, A CORPORA-
TION OF MISSOURI.

COFFEE-ROASTER.

No. 817,674.

Specification of Letters Patent.

Patented April 10, 1906.

Application filed September 22, 1905. Serial No. 279,736.

To all whom it may concern:

Be it known that I, LUDWIG SCHMIDT, a citizen of the United States, and a resident of St. Louis, Missouri, have invented certain new and useful Improvements in Coffee-Roasters, of which the following is a specification.

This invention relates to improvements in coffee-roasters; and it consists of the novel features hereinafter described and claimed.

The object of my invention is to construct a mechanism forming a part of the revolving member of a coffee-roaster to compensate the expansion and contraction of the various metals caused by the heat from the furnace without wearing the contacting points between the revolving member and the head of the drum.

A further object of my invention is to provide the drum-revolving member of a coffee-roaster with a means whereby the revolving member and head of the drum are automatically kept in contact during the expansion and contraction of the metals caused by the heating and cooling of the device and to prevent leakage, through which the coffee might escape.

In the drawings, Figure 1 is a perspective view of a coffee-roaster with my invention attached. Fig. 2 is an enlarged detail view of a portion of the drum with my invention attached and a part broken away and in section. Fig. 3 is a front view of the same. Fig. 4 is an inside view of the drum-head with a part thereof broken away.

In the construction of my invention I provide a cylinder 5, suitably perforated and attached to a rim 6. The rim 6 is provided, preferably, with four arms 7, which extend inwardly at a slight angle and terminate in a hub 8, by which the rim is supported upon the shaft 9, and in order that said rim may revolve with the shaft 9 the key 10 is placed in keyways formed in the hub and shaft. On the shaft 9 is placed a sleeve 11, which is held stationary in the journal-bearing 22 by any fastening device, and between the sleeve and the hub 8 is provided a spacing-ring 12. On the sleeve 11 is supported a head 13, which consists of a dish-shaped casing 14, formed integral with a rectangular hub 15. The head is also provided with a hopper 16, through which the coffee is inserted or admit-

ted into the cylinder 5, and its normal position is as shown in Fig. 1.

The contacting surface of the head is provided with a shoulder 17, which comes in contact with the outer edge of the rim 6, and the said head is also provided with a shoulder 18, which comes in close contact with the inner edge of the rim 6. (See Fig. 2.)

Between the shoulder 17 and the edge 19 is provided a recess 20, the purpose of which is to allow the contacting surfaces to wear without communicating with the edge 19.

The inner edge of the hub 15 is brought in close contact with the spacing-ring 12, which will prevent the contacting of the hub 8 with the hub 15, and the outer edge of the hub 15 is brought in contact with an expansive spring 21, which is placed upon the sleeve 11 and held in position by the journal-bearing 22. The journal-bearing 22 is supported by the bridge 23, which in turn is mounted upon the brackets 24, supported by the front plate of the roasting-furnace. (See Fig. 1.)

The head 13 is provided with a handle 25, by which the head is revolved upon the stationary sleeve 11, so that the hopper 16 may be located at the bottom, which will permit the coffee to be discharged from the cylinder 5 after the same has been thoroughly roasted.

The coffee when roasted is discharged from the drum through the hopper 16 when in the lowered position by a spiral paddle mechanism located within the drum and upon the shaft. This mechanism is of ordinary construction, as that now used in coffee-roasters.

The object of the expansive spring 21, the sleeve 11, and the spacing-ring 12 is to automatically retain the head 13 in close contact with the rim 6 during the expansion and contraction of the material. It has been found by practical experience that machines constructed other than with the expansive spring become rapidly worn at the contacting edges and in time cause a leakage at the point between the rim 6 and the head 13 and allow small particles of the coffee to pass therefrom, whereas in a construction as described the expansion will have no effect whatsoever at the contacting points specified.

Having fully described my invention, what I claim as new, and desire to have secured to me by the grant of Letters Patent, is—

1. A device of the class described com-

55

60

65

70

75

80

85

90

95

100

105

prising a shaft, a rim supported by said shaft, a cylinder carried by said rim, a sleeve mounted upon said shaft, a head mounted upon said sleeve, its edge coming in contact with said rim, a spring mounted upon said sleeve and located between the head and a bearing supporting said shaft, said spring to automatically retain the head in close contact with the rim, substantially as specified.

2. A coffee-roaster comprising a revolving drum, a shaft supporting said drum, a head, an elongated rectangular hub forming a part of said head, a sleeve located upon said shaft on which the head is mounted, a spacing-ring located between the hub and the hub of the rim, and a spring located around the sleeve and coming in contact with the front end of the head to automatically keep said head in close contact with the rim of the revolving member, substantially as specified.

3. A coffee-roaster comprising a suitable cylinder, a rim supporting the edge of the cylinder, a cylinder-head provided with a shoulder 17, a shoulder 18, an edge 19, and a

recess 20, shoulders on the head contacting with the edge of the rim to prevent leakage during the expansion and contraction of the metals, substantially as specified.

4. A coffee-roaster comprising a cylinder mounted upon a shaft, a sleeve located stationarily upon the said shaft, a cylinder-head mounted upon the said sleeve, the outer contacting edge of the cylinder-head provided with shoulders and a recess which contacts with the revolving edge of the cylinder, said contacting edge arranged to compensate the wear during the operation, and to prevent leakage during the expansion and contraction of the various parts of the coffee-roaster, substantially as specified.

In testimony whereof I have signed my name to this specification in presence of two subscribing witnesses.

LUDWIG SCHMIDT.

Witnesses:

W. C. ESSMUELLER,
A. NEUHAUSS.