No. 816,379. PATENTED MAR. 27, 1906.

K. H. ROMMEL.

COFFEE AND CEREAL ROASTER.

APPLICATION FILED NOV. 7, 1905.

4 SHEETS—SHEET 1.

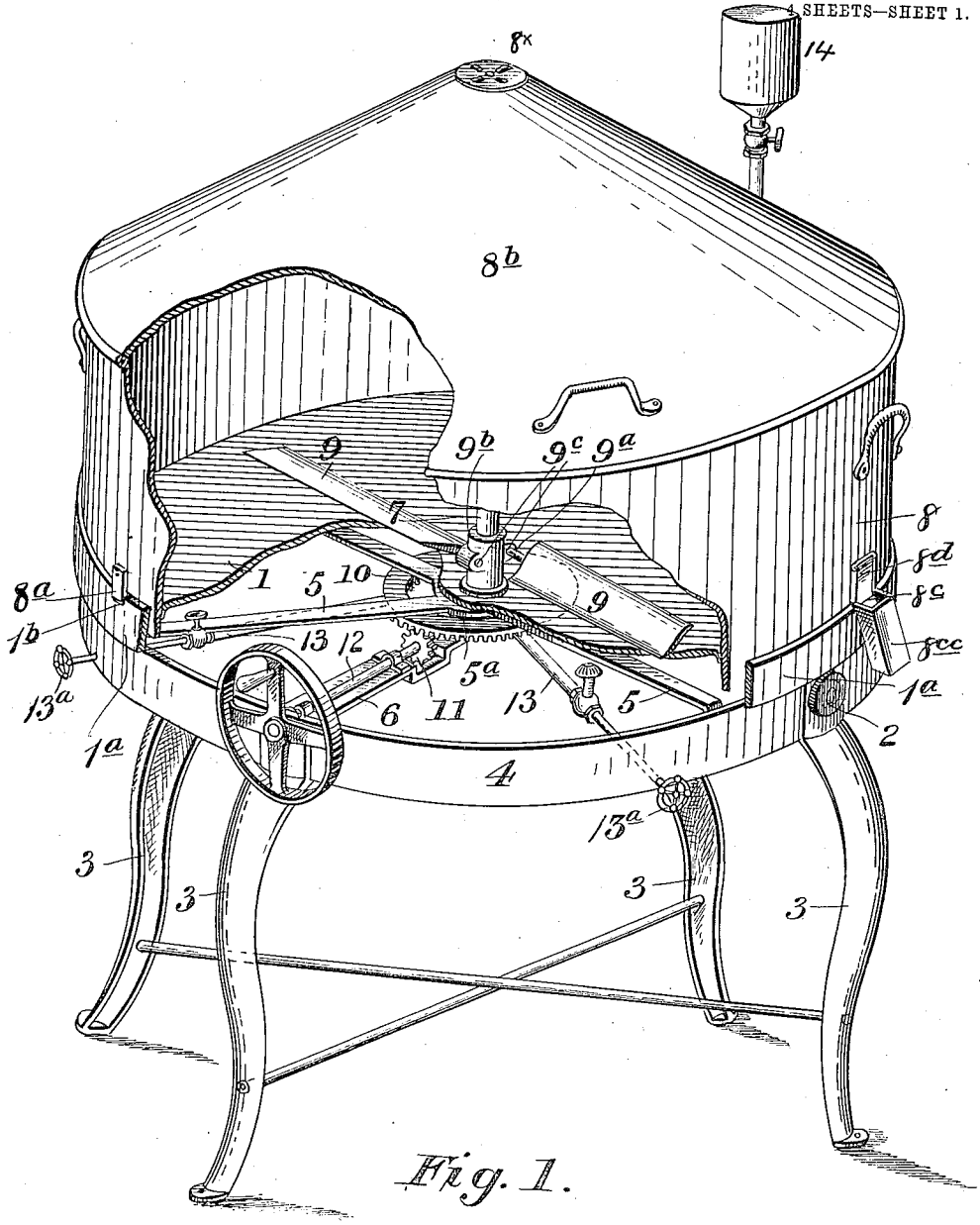


Fig. 1.

Witnesses:
W. H. Durand
J. Mueller

Inventor:
Karl H. Rommel,
By Louis Bagger & Co.
Attorneys

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4 SHEETS—SHEET 2.

Fig. 3.

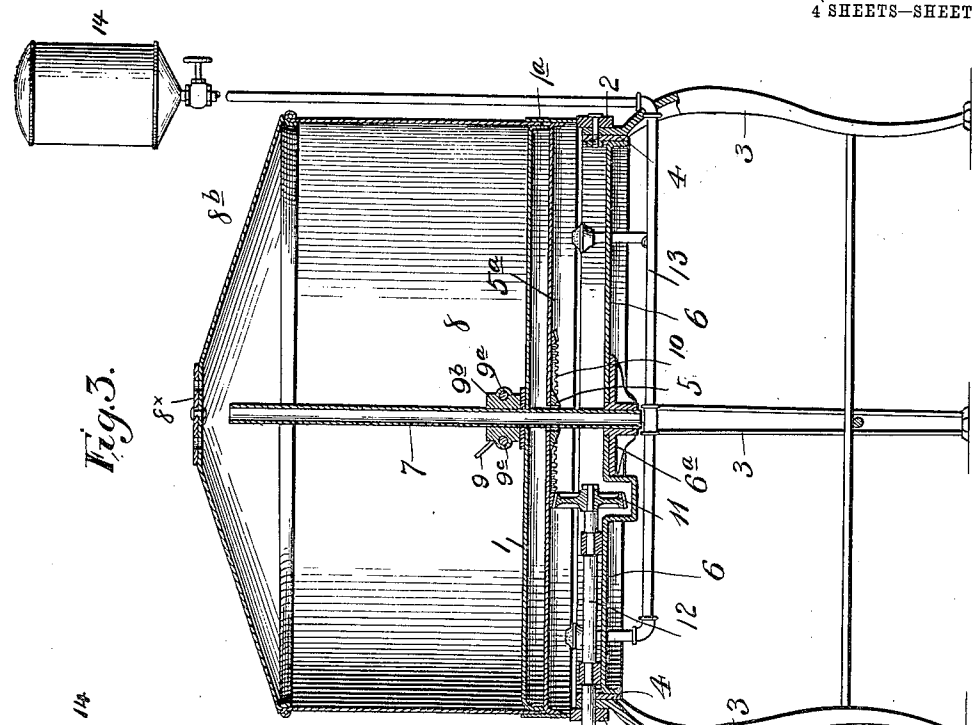
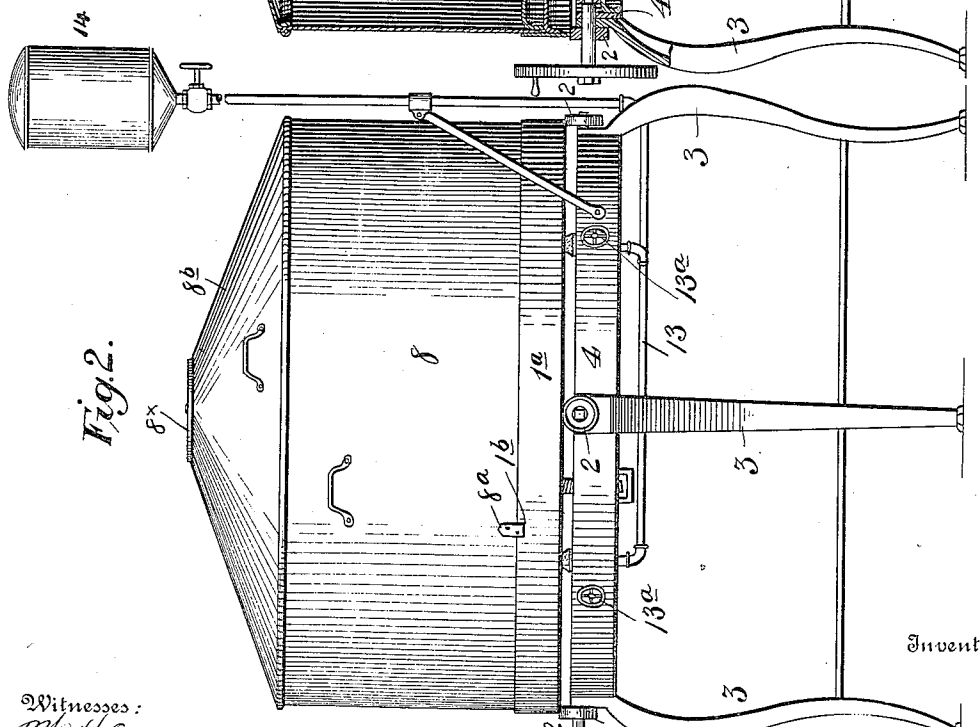


Fig. 2.



Witnesses:

W. H. Durand.

J. R. Webster

Inventor:

Karl H. Rommel,

By Louis Bagger & Co.,

Attorneys.

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4 SHEETS—SHEET 3.

Fig. 4.

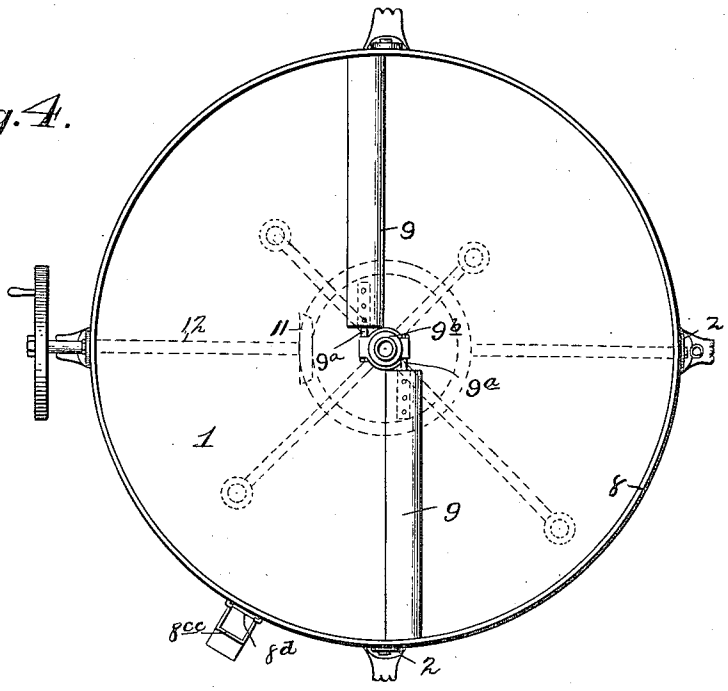
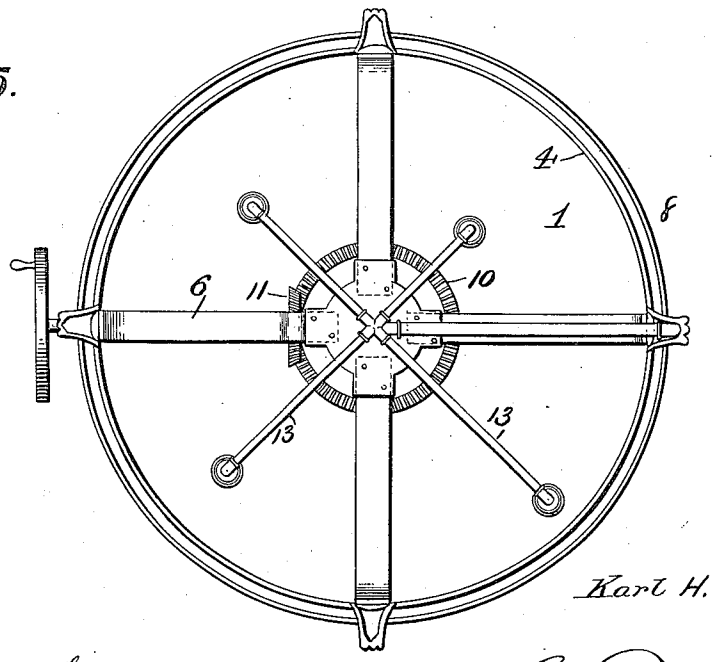


Fig. 5.



Witnesses:

W. H. Ouraud

J. Mister

Inventor:

Karl H. Rommel

By Louis Bagger & Co

Attorneys

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4 SHEETS—SHEET 4.

Fig. 6.

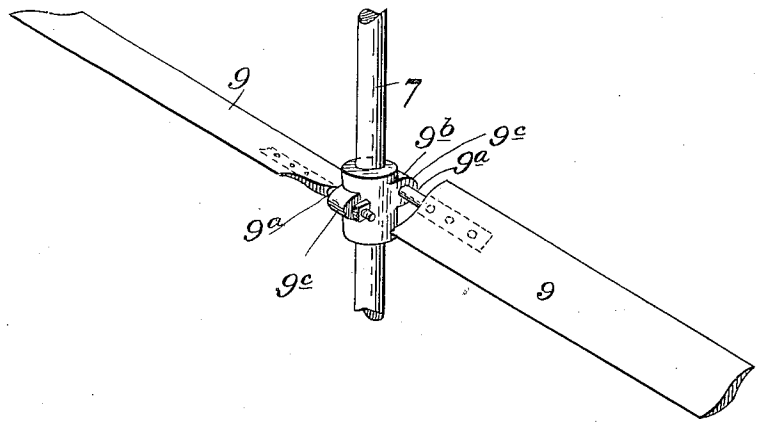


Fig. 7.

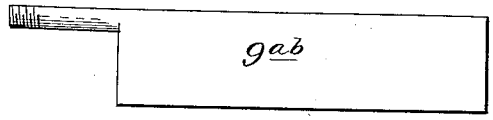
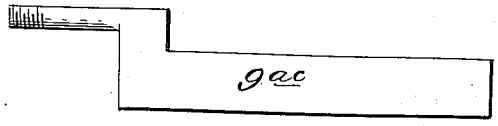


Fig. 8.



Witnesses:
W. H. Durand.
J. H. Mister

Inventor:
Karl H. Rommel,
By Louis Bagger & Co
Attorneys

UNITED STATES PATENT OFFICE.

KARL H. ROMMEL, OF ROCHESTER, MINNESOTA.

COFFEE AND CEREAL ROASTER.

No. 816,379. Specification of Letters Patent. Patented March 27, 1906.

Application filed November 7, 1905. Serial No. 286,274.

To all whom it may concern:

Be it known that I, KARL H. ROMMEL, a citizen of the United States, residing at Rochester, in the county of Olmsted and State of Minnesota, have invented new and useful Improvements in Hygienic Coffee, Coffee, and Cereal Roasters, otherwise known as "Revolving Combination Roasters," of which the following is a specification.

My invention relates to improvements in what may be termed "hygienic coffee, coffee, and cereal roasters."

Objects of the invention are to provide for effectively and expeditiously performing the roasting operation and to do this in a simple, economic, and thorough manner.

To these ends said invention consists of certain structural features substantially as hereinafter fully disclosed, and particularly pointed out by the claims.

In the accompanying drawings, illustrating the preferred embodiment of my invention, Figure 1 is a broken perspective view thereof. Fig. 2 is a side elevation. Fig. 3 is a sectional elevation. Fig. 4 is a horizontal section, and Fig. 5 is an under side view of the same. Fig. 6 is an enlarged detailed perspective view showing more especially the stirrers or agitators and their means of attachment or adjustment to the shaft to which they are applied. Figs. 7 and 8 are modified forms of the agitators or stirrers.

In carrying out my invention, I suitably mount in position a rimmed-pan-bottom member 1, preferably having its rim 1^a depending from its perimeter and resting edgewise upon revolving bearings or rolls 2, journaled upon and laterally of legs 3 and of a corresponding rim-like member 4, supported by and to which said legs are secured. Said bottom member 1 has extending just below its lower surface radial arms or braces 5, with their outer down-bent ends secured to the inner surface of the rim 1^a of said bottom member. The opposite ends of said arms or braces are preferably integral with a ring-like central part 5^a for bracing the bottom member, as is apparent. Also some distance below the aforesaid arrangement of bracing arms or parts are additional bracing arms or bars 6, secured at their outer ends to the inner surface of the rim member 4, preferably by the same fastenings, effecting connection between the legs 3 and said rim member. The inner or opposite ends of the bracing arms or bars 6 are also secured to a central ring-like member or plate 6^a, also forming a socket or step for a vertical shaft 7, extending centrally through the part 5^a and some distance thereabove, as shown and for a purpose presently made apparent.

A bottomless cylinder 8, also open at its upper end and forming the lateral wall or casing of the containing-receptacle of the roaster, is adapted to be seated or held at its bottom edge intermediately of the rim 1^a and the spaced-off downturned edges of the bottom member 1, as seen particularly in Fig. 3. A stop or outstanding lug 8^a, secured or fixed to the cylinder 8 and entering a notch or recess 1^b in the upper edge of the rim 1^a, serves to retain said cylinder as against turning. The cover or closure 8^b is provided at its center with a ventilator $8^\times$ for the admission of air for the cooling of the contents of the pan, &c. A suitable cover or lid 8^b, preferably of the outline shown in Fig. 2, is fitted upon the cylinder or casing 8, for confining the heat delivered to the contents thereof, the purpose of which is obvious. Both said casing and cover or lid are equipped with suitable hand or finger holds of the usual construction shown for facilitating the removal thereof. Laterally through the rim 1^a of said casing is an opening 8^c, at the bottom edge of which is a spout-like extension 8^{cc}, integral or cast with the rim, for permitting the ready delivery or "running" off the contents of the receptacle or pan. Said opening is closed by a suitable slide or gate 8^d, slidable within guides or flanges at the lateral edges of said opening, as shown on Figs. 1 and 2, and which slide or gate of course may be readily raised or wholly removed when necessary to remove said contents. The pan-bottom and the casing or sides in practice are usually made of malleable steel or malleable cast-iron, while the cover is preferably of heavy galvanized iron or other suitable material.

Blades 9, which serve as stirrers or agitators for suitably effecting or causing the passing of the pan contents—as bran, hygienic coffee, coffee, peanuts, or cereals, &c.—over the blades in the stirring operation, are provided and arranged at opposite angles having stems 9^a, and in connection therewith is used a sleeve 9^b, suitably fitting and held upon the shaft 7 and having opposite horizontal eyes 9^c receiving said stems, the latter being equipped with nuts for the retention of the blades or stirrers in place upon said sleeve.

It is noted that by suitably loosening and manipulating the blades or stirrers and retightening the same they may be varied in angular adjustment, as may be desired.

Suitably fixed to the arms or braces 5 of the pan-bottom member 1 is a toothed or cogged annulus 10, with which meshes a beveled pinion 11, carried or fixed to a hand-wheel-actuated shaft 12, by the suitable turning of which it is plain said bottom member may be readily revolved, thus providing for bringing the pan contents into contact with the stationary baffling blades or stirrers 9 for the purpose aforesaid, thus thoroughly or effectively presenting the single units of said contents to the action of the heat, as presently more fully disclosed.

Gasolene-burner-provided pipes 13, having connection with a suitable valve-equipped tank 14, properly braced in position, are arranged under the bottom member 1 for delivering the heating action of the flames emitted from the burners of said pipes upon said bottom member in effecting the roasting operation of the pan contents. Said burner-pipes are suitably supported in position, preferably as shown in Fig. 5, and have their burner-equipped ends preferably disposed with relation to the bottom member, as also disclosed in said figure, at varying distances from the center of the latter for effectively delivering or distributing the heating action of the burner-flames thereon, as is apparent. Each burner-pipe 13 is furnished at a convenient point for its manipulation with a key or valve 13^a, the purpose of which is obvious.

In the modifications as disclosed by Figs. 7 and 8, taken in connection with Figs. 1 and 4 in particular, it will be noted that I may make the blades or stirrers in what I term "whole," "half," and "quarter" blades or stirrers, the latter two forms being designated as 9^{ab} and 9^{ac}, respectively.

It is also observed that the machine as thus constituted may be used for toasting or treating stale bread-crumbs, for "popping" corn, for refreshing "oyster-crackers," and for many other purposes which may not be here mentioned.

I claim—

1. A device of the character described, comprising a containing-receptacle, means for actuating said receptacle, and a series of burner-equipped pipes arranged under said receptacle and having their burner-furnished ends arranged at varying distances from the center of said bottom and at intervals apart one from the other around said center.

2. A device of the character described, having a fixed rim-like member provided with rotary bearings, a rotatable bottom member resting upon said bearings, an upright shaft central of said bottom member and equipped with lateral radial stirrers effective for engaging the contents of said bottom member, and a series of burner-equipped pipes arranged under said bottom member and having their burner-furnished ends arranged at varying distances from the center of said bottom member and at intervals apart one from the other around said center.

3. A device of the character described, comprising a fixed bottom member provided with rotary bearings, a rotatable bottom member resting upon said rotary bearings, a cylinder or casing superposed upon said bottom member and provided with a vent-equipped cover, a shaft central of said bottom member and provided with lateral stirrers effective for engaging the contents of said bottom member and a series of burner-equipped pipes arranged under said bottom member and having their burner-furnished ends arranged at varying distances from the center of said bottom member and at intervals apart one from the other around said center.

4. A device of the character described, having a fixed rim-like member, a containing-receptacle or pan superposed upon the latter, and a series of burner-equipped pipes arranged under the bottom of said receptacle, with their burner-furnished ends arranged at varying distances from the center of said bottom.

5. A device of the character described, employing a containing-receptacle including a rotary bottom member, a shaft extending centrally through said bottom member, and agitator-blades having end stem portions and a sleeve applied to said shaft and having opposite horizontal eye members receiving said stem portions, said stem portions being equipped with nuts to secure the same in said eye members.

In testimony whereof I affix my signature in presence of two subscribing witnesses.

KARL H. ROMMEL.

Witnesses:
GEO. J. ALLEN,
IVA M. POSTIER.