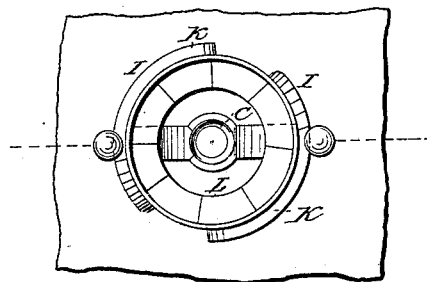
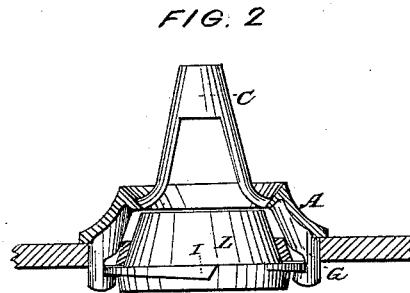
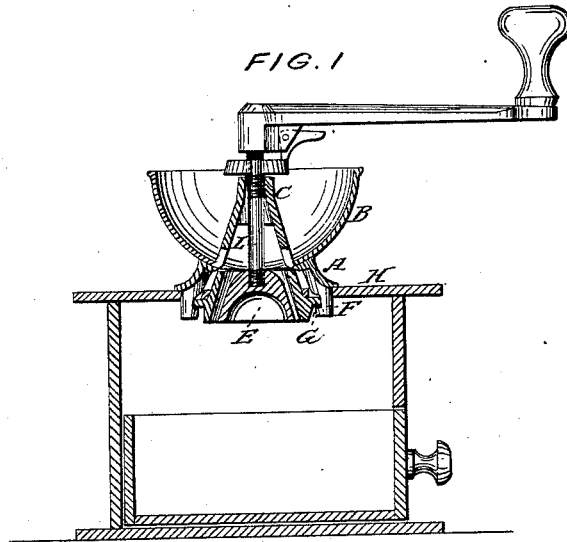


F. RAYMOND.

Coffee Mill.

No. 111,778.

Patented Feb. 14, 1871.



WITNESSES:

*A. Benninghoff*  
*L. S. Mabee*

INVENTOR:

*F. Raymond*  
PER *Wm. Co.*

# United States Patent Office.

FRANCOIS RAYMOND, OF WOODHAVEN, NEW YORK, N. Y., ASSIGNOR TO THE LALANCE AND GROSJEAN MANUFACTURING COMPANY, OF NEW YORK CITY.

Letters Patent No. 111,778, dated February 14, 1871.

## IMPROVEMENT IN COFFEE-MILLS.

The Schedule referred to in these Letters Patent and making part of the same.

*To all whom it may concern :*

Be it known that I, FRANCOIS RAYMOND, of Woodhaven, in the county of Queens and State of New York, have invented a new and useful Improvement in Coffe-Mills; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

This invention relates to improvements in coffee-mills; and

It consists in an improved construction of the stationary grinder, and the hopper, and rotary grinder-support calculated to simplify and cheapen the cost of attaching the parts to the box top and together, as hereinafter described.

Figure 1 is a sectional elevation of my improved mill;

Figure 2 is a section through the same without the hopper and the rotary grinder; and

Figure 3 is a plan of the bottom of the parts represented in fig. 2.

Similar letters of reference indicate corresponding parts.

I provide the ring or collar A, which is for the support of the hopper B, and the bearing C for the shaft D of the rotary grinder E, with two or more lugs, F, on the bottom projecting through the box top, and having notches, G, on the sides fronting the vertical axis, said notches being mostly below the lower side of the box top H, to which the mill is to be attached; and

I provide the horizontal flanges I, as many as there are studs F, having oblique or spirally-inclined lower sides K, on the stationary grinder L, near the base or at its greatest diameter, for engaging in the said

notches, and clamping it against the under side; also clamping the ring A upon the upper side of the box top, by the turning of the said grinder, and wedging the thicker parts of the flanges between the lower walls of the notches G of the lugs F, and the under side of the box top.

The ring A being cast with the notched lugs and the grinder L with the flanges, are all ready for this attachment when removed from the molds, and the sand is cleaned off, so that no fitting is required in putting the said parts together, except the making of the holes through the box top for the lugs F, which works a considerable economy in the construction of these mills over the common arrangement, in which the grinder L and the ring A are provided with ears, through which bolts, which pass through the box top, are passed, and either screwed into the ears of one part, which are tapped for the purpose, or into nuts.

This construction also simplifies the taking of the mill apart, for the substitution of a new grinder, L, when worn out, or for any other purpose.

In this example the hopper B is represented as being formed separately from the ring A, and secured thereto by screws; but it may be cast together with it, if preferred.

Having thus described my invention,

I claim as new, and desire to secure by Letters Patent—

The ring A having the notched studs F, and the stationary grinder having the inclined flanges I, combined with the box top and each other, all substantially as specified.

FRANCOIS RAYMOND.

Witnesses:

E. T. WATROUS,  
GEO. W. MABEE.