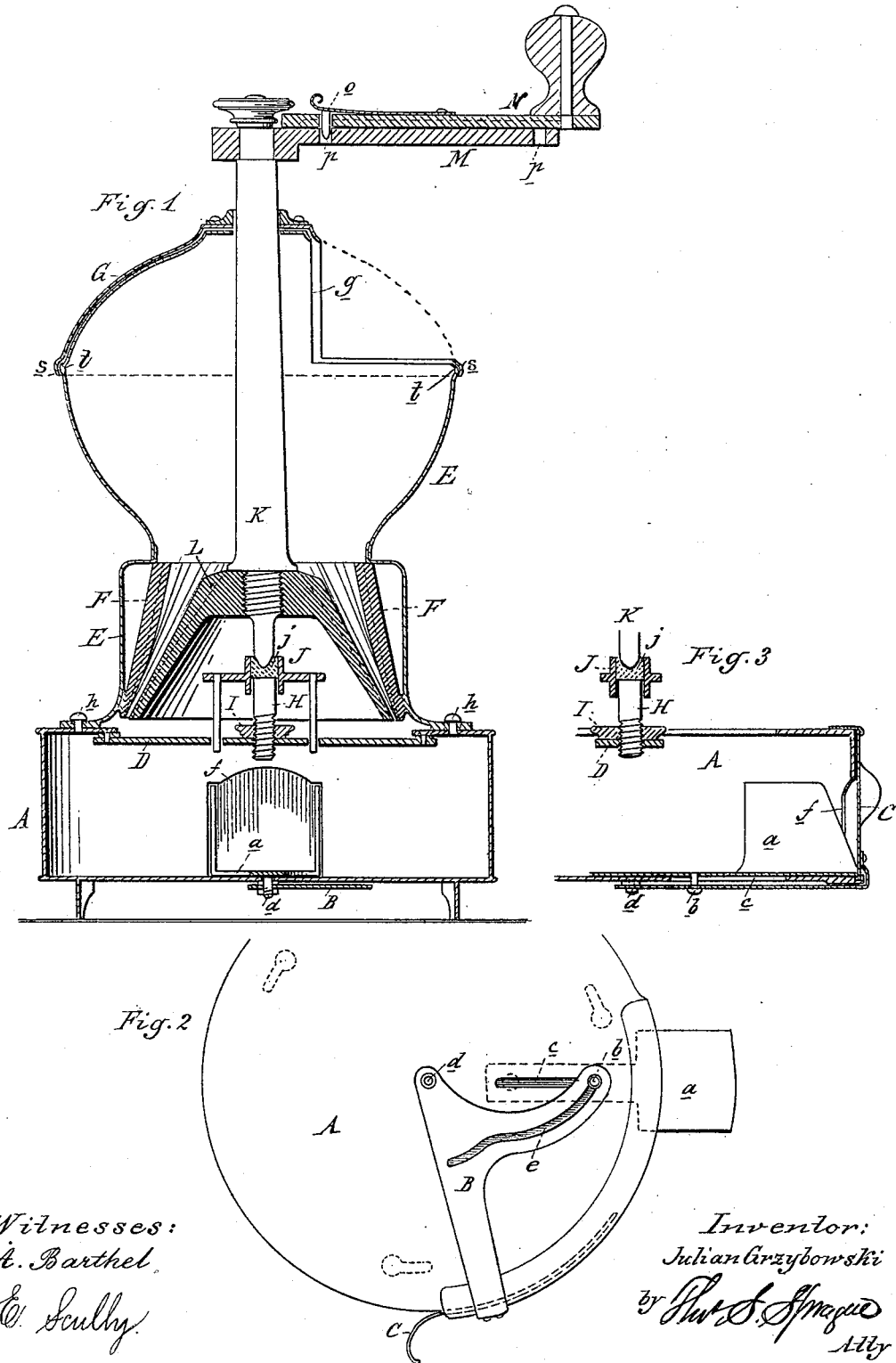


(No Model.)

J. GRZYBOWSKI.  
COFFEE MILL.

No. 250,659.

Patented Dec. 13, 1881.



Witnesses:  
A. Barthel,  
C. Sculby.

Inventor:  
Julian Grzybowski  
by *Wm S. Sprague*  
Att'y

# UNITED STATES PATENT OFFICE.

JULIAN GRZYBOWSKI, OF DETROIT, MICHIGAN.

## COFFEE-MILL.

SPECIFICATION forming part of Letters Patent No. 250,659, dated December 13, 1881.

Application filed May 4, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, JULIAN GRZYBOWSKI, of Detroit, in the county of Wayne and State of Michigan, have invented an Improvement in Coffee-Mills, of which the following is a specification.

The nature of this invention relates to certain new and useful improvements in the construction of coffee-mills; and the invention consists in the peculiar construction, arrangement, and combinations of the various parts, all as more fully hereinafter set forth.

In the drawings, Figure 1 is a central vertical section. Fig. 2 is a bottom plan. Fig. 3 is a sectional detail.

In the accompanying drawings, which form a part of this specification, A represents a cylindrical case which supports the mill and case proper, and which answers as a receptacle for the ground coffee as it passes from the mill. In the bottom of this case A is a spout, *a*, from the under face of which projects a pin, *b*, which passes through a slot, *c*, in the bottom of the case A. A cam-lever, B, is pivotally secured, as at *d*, to the bottom of the chamber or case A, one arm of said cam-lever projecting slightly beyond the periphery of the case, at which point it is connected or secured to a slide, C. The other arm of the bell-crank lever B is slotted, as shown at *e*, within which slot the pin or stud *b* of the spout *a* is designed to travel. The lever and spout are so connected together that as the slide C is drawn back so as to disclose the opening *f* in the wall of the case A the spout *a* will be projected. In a similar manner, in the reverse movement of the cam-lever, as the slide C is operated to close the opening *f* the spout *a* will simultaneously be withdrawn into the case. The upper or top plate of the case A has formed in it a circular hole, across which is rigidly secured the bar D, for the purposes hereinafter described. Rising from the top plate of the case are headed pins or studs *h*, which are designed to engage with radial slots in the base of the mill-case E, for the purpose of securing the two cases E A together and in such manner that they may readily be separated.

In the lower portion of the case E is rigidly secured the conical annular casting F, the inner face of which is serrated. The upper portion of this case serves as a hopper, and is

spherical in form, having a portion of its wall cut away, as at *g*, through which the coffee to be ground is introduced.

The outer shell, G, is placed over the upper portion of the case E, a portion of such case or shell being cut away, and this shell is so arranged that it may be turned so as to close or disclose the entrance to the hopper. The outer shell or cover, G, is provided with a concave ring, *s*, which fits around a rib, *t*, formed on the case E, and this ring serves to keep the cover G in place, and forms a slide or guide for the movement of the same.

In the center of the bar D there is threaded a bolt, H, which carries a nut, I.

J is a saddle or frame, which slips over the upper end of the screw-stud H, and in the center of this saddle is formed a proper bearing, *j*, in which the lower end of the shaft K is stepped, and which carries the rotating serrated grinding-cone L. The upper end of this shaft K passes at or through the top of the shell or case E, and receives upon its outer end a crank-handle, M, by means of which the shaft is rotated. This crank-handle is provided with a sliding portion, N, which has a spring-pin, *o*, secured to it, designed to engage with one of the holes *p* in the portion M, and so arranged that the crank-handle may be lengthened or shortened, if desired.

In practice the shell G is turned so as to disclose the entrance of the hopper or case E, through which the coffee to be ground is introduced. When the shell G is turned back so as to close such opening the shaft and serrated cone are then rotated by means of the crank-handle M, which operation grinds the coffee, which drops into the case A. During this operation the slide C is closed over the opening *f*. When it is desired to empty the ground coffee out of the case A the slide C is drawn back, disclosing the opening in the wall of such case, simultaneously projecting the spout *a*, by means of which the ground coffee is then emptied into any desired vessel. When it is desired to have the mill grind finer or coarser the frame J, in which is stepped the lower end of the shaft K, is raised or lowered in the bar D by means of the screw-bolt H and nut I, diminishing or increasing the distance between the two serrated grinding-surfaces of

the mill. After the coffee has been ground the upper shell, E, may readily be removed from the lower case, A, by turning the upper case so that the headed bolts or studs will be disengaged from the respective slots.

5 What I claim as my invention is—

10 1. In a coffee-mill, and in combination with the hopper E thereof, provided with an annular rib, *t*, and an opening, *g*, as described, the shell or cover G, provided with an annular concave ring, *s*, and having an opening to correspond with the opening in the hopper, substantially as and for the purpose specified.

15 2. As a means of vertically adjusting the shaft and cones of a coffee-mill, the frame J, provided with a central bearing, *j*, for receiving the lower end of the shaft K, and with parallel guiding-pins to slide in holes in the bar D, in combination with the bolt H under said

frame J, adjusting-nut I, and the supporting bar D, substantially as specified. 20

3. In a coffee-mill, and in combination with the shell or case A thereof, provided with an opening, *f*, the sliding spout *a*, provided with a projecting stud, *b*, and the pivoted lever B, 25 having a cam-slot, *e*, for receiving said stud *b*, substantially as and for the purpose specified.

4. In a coffee-mill, and in combination with the case A, having an opening, *f*, sliding spout *a*, having a projecting stud, *b*, and pivoted lever B, having a cam-slot, *e*, to receive said stud *b*, the sliding gate C, fastened at one end to the lever B, substantially as and for the purpose specified. 30

JULIAN GRZYBOWSKI.

Witnesses:

H. S. SPRAGUE,

E. SCULLY.