

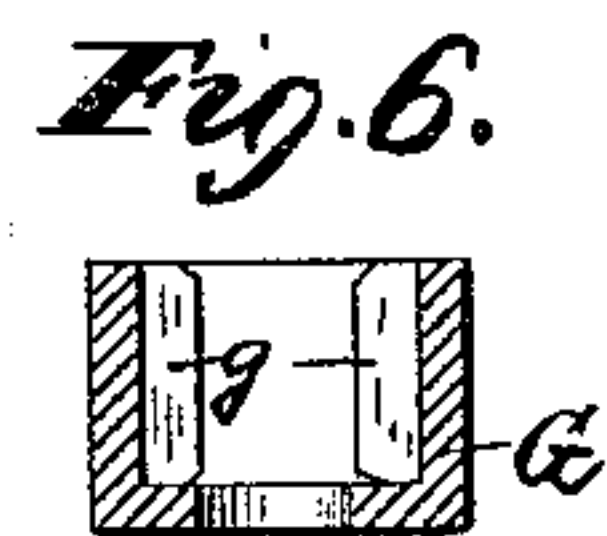
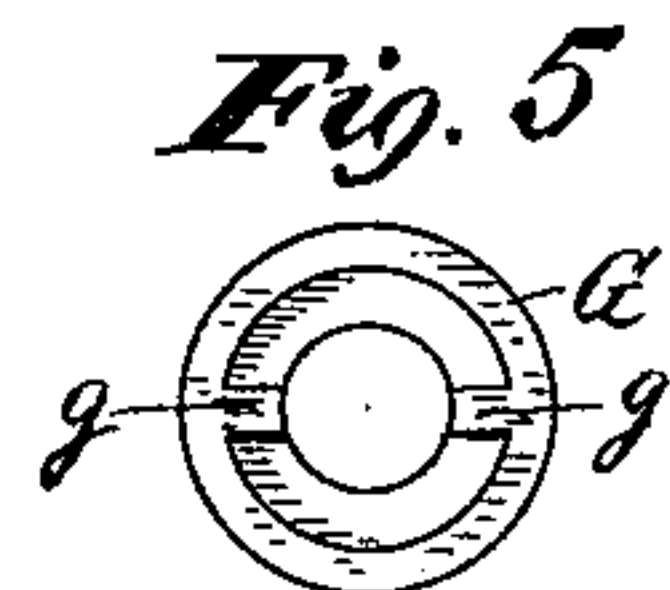
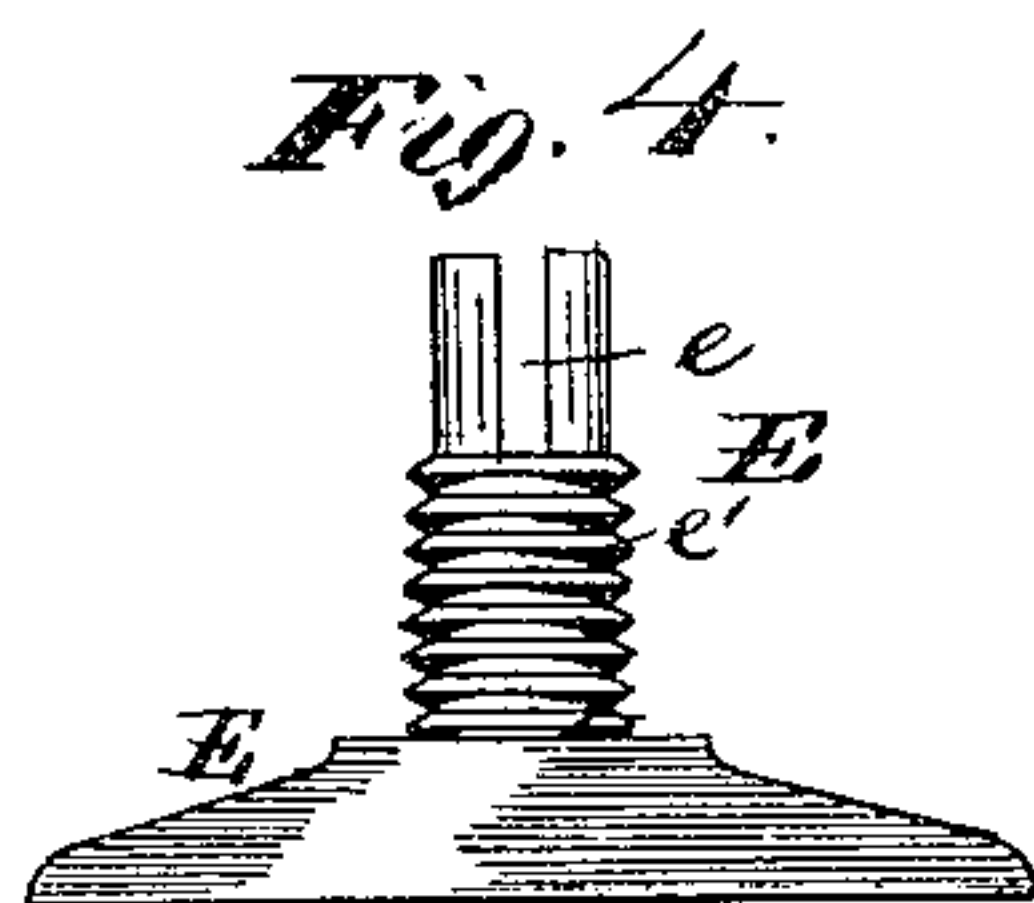
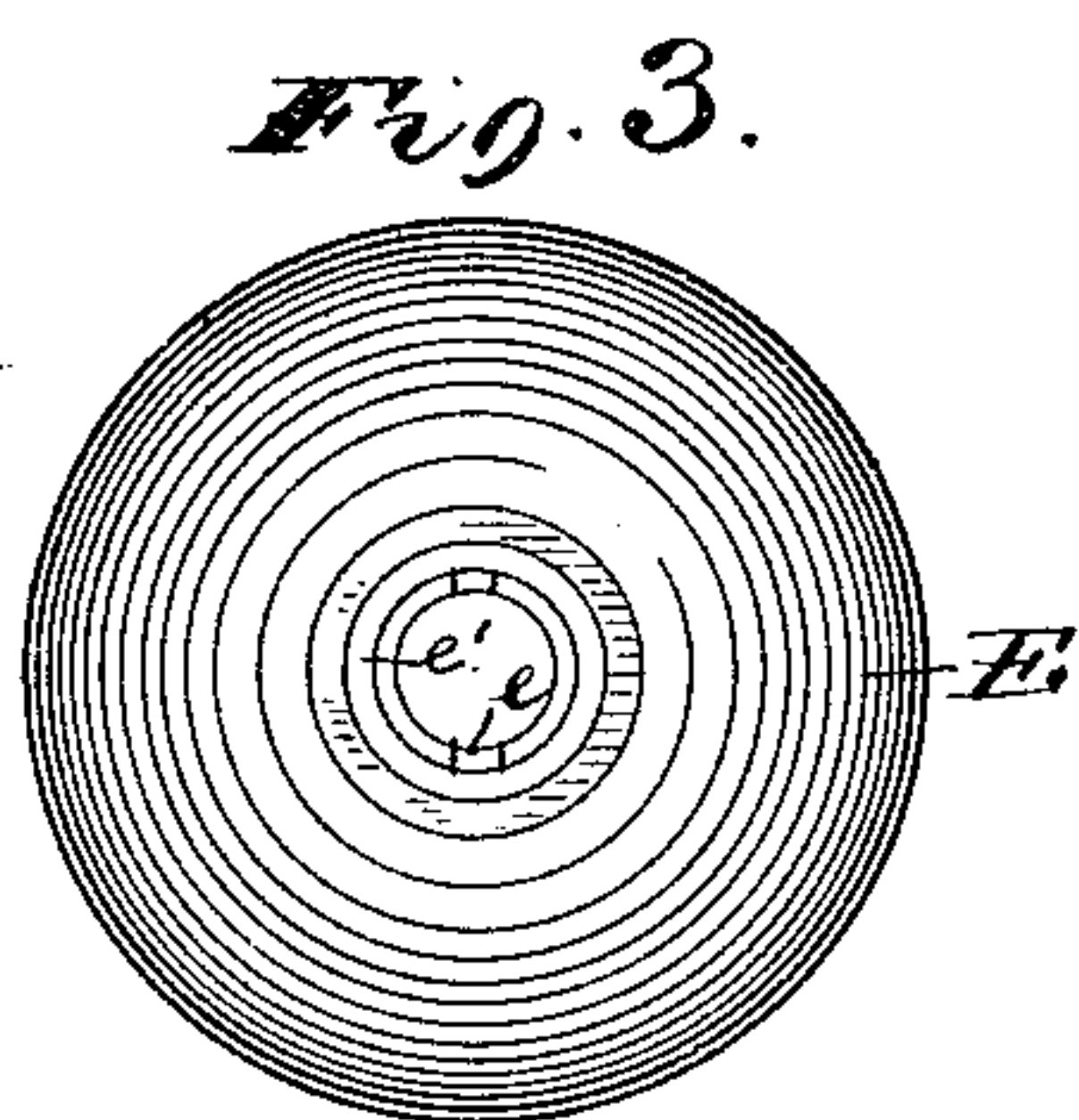
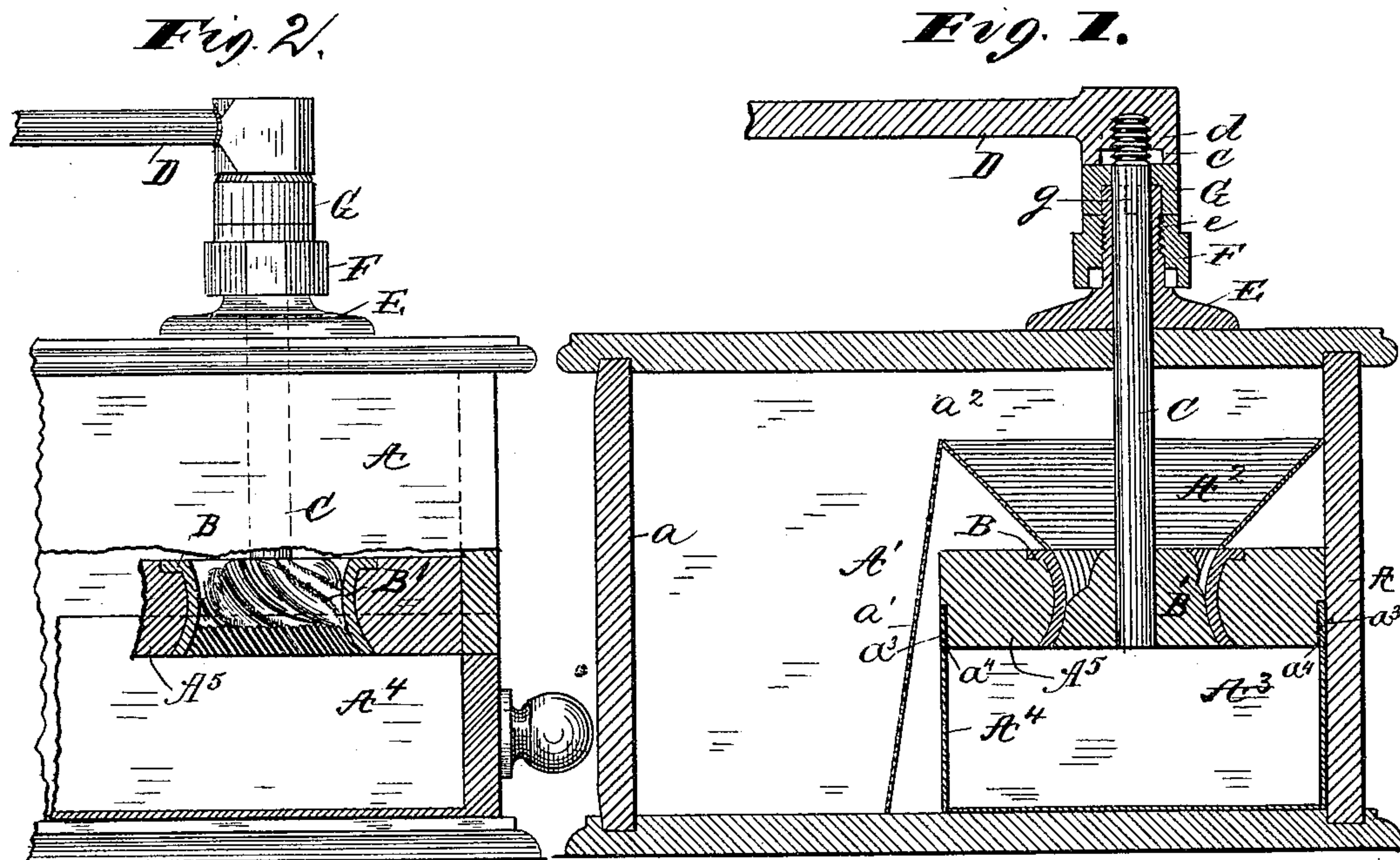
(No Model.)

F. KRATER.

COFFEE MILL.

No. 350,139.

Patented Oct. 5, 1886.



Witnesses:
Gabriel J. W. Galster
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UNITED STATES PATENT OFFICE.

FREDRICK KRATER, OF ALTOONA, PENNSYLVANIA, ASSIGNOR OF ONE-HALF
TO JACOB W. LESLIE, OF SAME PLACE.

COFFEE-MILL.

SPECIFICATION forming part of Letters Patent No. 350,139, dated October 5, 1886.

Application filed September 28, 1885. Serial No. 172,320. (No model.)

To all whom it may concern:

Be it known that I, FREDRICK KRATER, a citizen of the United States, residing, at Altoona, in the county of Blair and State of Pennsylvania, have invented a new and useful Improvement in Coffee-Mills; and I hereby declare the following to be a full and clear description thereof.

This invention relates to the adjusting mechanism of the mill.

The invention will be readily understood by reference to the accompanying drawings, of which—

Figure 1 is a central sectional elevation of the improved mill through the central part of the storage-compartment, and also through the central part of the grinding-mill. Fig. 2 is an elevational view of the improved mill, showing the upper end of the spindle and its handle in elevation, the lower part of the figure showing the mill, its case, and the receiving-drawer in section. Figs. 3 and 4 are respectively a plan and a side elevation of the slotted and threaded socket-piece, through which the spindle of the mill passes and by which the adjustment of the mill is in part effected. Figs. 5 and 6 are respectively a plan and section of the washer-piece, showing the internal lugs which fit the slots of the socket piece or post. (Shown in Figs. 3 and 4.)

The mill is mounted in a suitable boxing or case, A, which is subdivided into three compartments, marked, respectively, A' A² A³. The coffee-beans, ready for grinding, are first put into the compartment A' through the door or slide *a*, which slides laterally in the grooves in which it is engaged by the top and bottom of the case, as shown in Fig. 1, and from the compartment A' they are passed into the compartment A², which is the hopper of the mill, by turning the box A over on its side, so as to allow the coffee-beans to enter the said hopper A² over the top of the partition *a'*, which separates the compartment A' from the other two compartments, A² and A³, the said partition *a'* being constructed so as to extend only a part of the way from the bottom to the top of the box A, thus leaving an aperture, *a''*, near the top of the box, through which the coffee-beans are allowed to pass from the storage-compartment

A' into the hopper-compartment A² when the box A is turned over on its side, as above described. Directly below the hopper-compartment A² is the receiving-compartment A³, for receiving the ground coffee, and this compartment is ordinarily provided with a drawer, A⁴, into which the coffee is ground and from which it can easily be removed. The compartment or hopper A² is made of a size that will just contain a suitable quantity for a certain number of cups of coffee, and thus becomes a measuring-gage for the coffee supplied to the mill.

The mill is of the ordinary kind of coffee-grinders, and consists of a grinding-shell, B, and a grinding-cone, B'. The grinder is attached to the bottom end of a vertical spindle or shaft, C, by which it is rotated, and this shaft is turned by a crank-handle, D, attached to the top end of the said vertical shaft by screwing it thereon by the screw-threads *c d*. These threads are formed so that the handle is screwed on in the direction in which the mill must be turned to make it grind, and when the handle is screwed home on its said spindle the further turning of it will also turn the mill.

The mill B B' is so constructed that when the rotary grinder B' is raised the mill is set so as to grind finer, and when it is lowered it will grind coarser. The said grinder B' is fixed to the vertical shaft C, and is raised or lowered as required by and with the said shaft in the following manner: A socket piece or post, E, is secured to the top side of the box A, and extends vertically upward therefrom. This post is made hollow, and the vertical shaft C passes up through it. The top end of the said post E has a vertical slot, *e*, formed in it, and the exterior of its upper part is screw-threaded at *e'* for the screw-threads of the adjusting-nut F. The slots *e*, placed diametrically opposite each other in the top end of the said post E, receive the inwardly-projecting lugs *g* of the washer or follower G, so as to prevent the said washer from turning as the nut F is rotated or screwed up or down on the said post E. By turning the said nut F up or down, as required, the spindle C is raised or lowered, and the mill is thereby set so as to grind coarse or fine, as required.

The bottom of the hopper-compartment A²

rests on or is formed of a transverse frame, A⁵,
which forms a rigid support for the hopper-
compartment A² and the grinding-shell B, and
at the same time it forms a diaphragm or par-
5 tition between the compartments A² A³, and
it also forms a close cover for the top of the
drawer A⁴, the sides of the said drawer extend-
ing upward in the form of vertical lips a³ into
small rabbets or grooves a⁴, formed in or at the
10 edges of the said diaphragm-board to receive
them, and thus a securely-closed cover is
formed for the drawer A⁴ when it is closed.

Having thus described my invention, what
I claim as new, and desire to secure by Let-
15 ters Patent, is—

The combination of the shell B, the cone B',
the spindle C, and handle D, having screw-
threads c and d, the screw-threaded and slotted
hollow post E, the screw-threaded adjusting-
nut F, and the lugged washer G, substantially 20
as shown and described.

In witness whereof I hereunto set my hand
in presence of two witnesses.

FREDRICK KRATER.

Witnesses:

MILTON ALEXANDER,
W. D. COUCH.