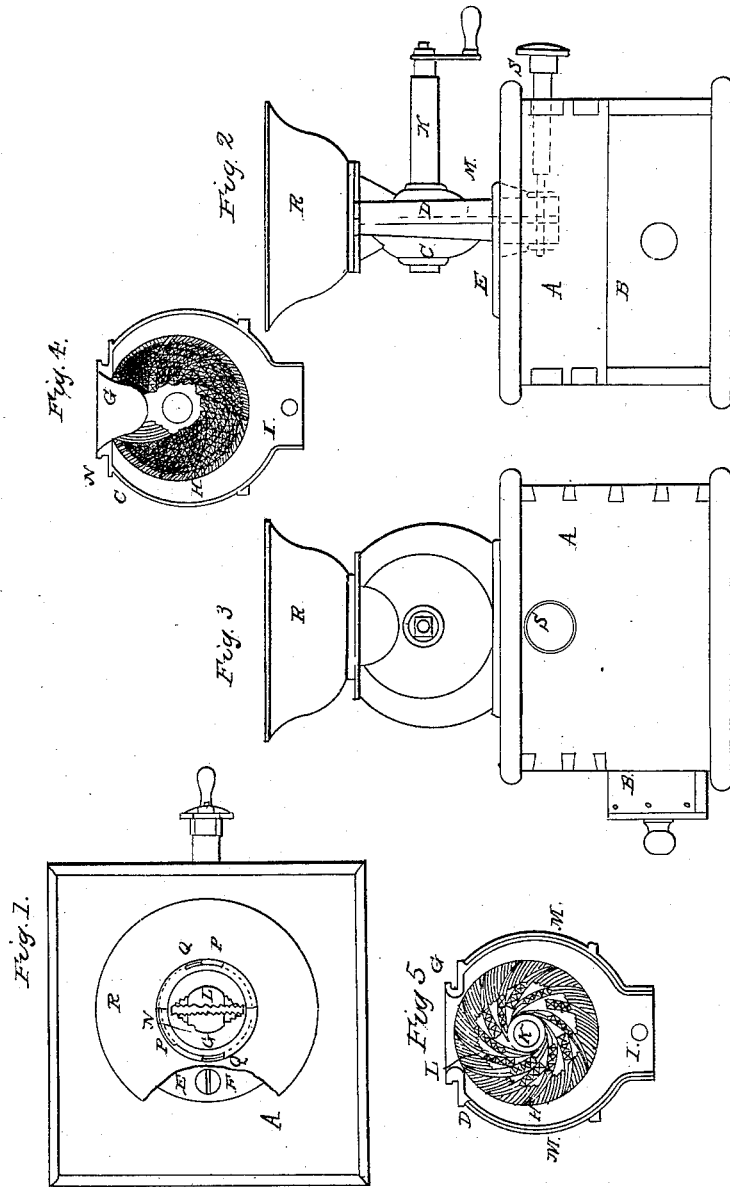


N. CHAPMAN.

Coffee Mill.

No. 58,772.

Patented Oct. 16, 1866.



WITNESSES
James M. Fowler
C. A. Blanchard.

INVENTOR
Nathan Chapman
By his Atty. J. Deming.

UNITED STATES PATENT OFFICE.

NATHAN CHAPMAN, OF HOPEDALE, MASSACHUSETTS.

IMPROVEMENT IN COFFEE-MILLS.

Specification forming part of Letters Patent No. 58,772, dated October 16, 1866.

To all whom it may concern:

Be it known that I, NATHAN CHAPMAN, of Hopedale, Worcester county, State of Massachusetts, have invented certain new and useful Improvements in Mills for Grinding Coffee, Spice, Grain, and other articles; and I do hereby declare the following description and accompanying drawings are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use my said invention or improvements without further invention or experiment.

The nature of my invention and improvements consists in making the bottom of the hopper surround the top of the mill-case and hold it together, and in making the bottom of the hopper eccentric, or the top of the case eccentric, or both, for the purpose of adjusting the top of the case to make the mill grind coarse or fine.

Figure 1 is a plan, with part of the hopper removed to show the flange for fastening the case to the box. Fig. 2 is an elevation of the mill-front. Fig. 3 is a side elevation; Fig. 4, the inside of one part of the case; Fig. 5, one side of the disk in one side of the case.

In these drawings, A is the mill-box, made of wood or other material, in the form shown, or in such other form as will answer the purpose, and provided with a draw, B, to receive the coffee or other materials ground.

A hole is made in the top of the box for the lower part of the mill-case, which is made in two parts, C and D, of cast-iron or other metal, in the form shown in the drawings, or in such other form as will answer the purpose. The side C of the case is provided with a flange, E, by which it is fastened to the box by the screws FF, and both of the sides C and D are made convex on the outside and concave on the inside, which is grooved in different directions, to form small pyramids for grinding-surfaces, as shown in Fig. 4.

The top of each part of the case has a recess, G, to let the grain or coffee down near the center of the mill, where there is the most space and power, so that it may be ground as it is worked out toward the periphery of the disk and into the circular recess, H, between the grinding-surface and the edge of the case, and falls down through the opening I in the bottom of the case into the draw B in the box A, ready for use.

Both parts of the case are perforated in the center for the shaft K to turn in, which may be moved by a crank, pulley, or gear to turn the disk L, fastened to it. Both sides of this disk are grooved and cut into pyramids, as shown in Fig. 5, to do the grinding in conjunction with the pyramids and grooves on each part of the case.

The side D of the case is provided with a thin flange, M M, on its periphery, for the edge of the side C to fit into and hold the two sides in proper relative position to each other. There is a flange, N, around the top of the recess G in each part of the case, as shown in Fig. 1, with a groove in it, with two notches, P P, for the lugs Q Q on the hopper R to pass down when it is turned to lock the sides of the mill together.

The inside edges of the lugs Q, or the bottom of the groove in the sides of the case, may be made eccentric, as shown by dotted lines in Fig. 1, so that by turning the hopper the sides of the case may be set nearer to or farther from the disk, to make the mill grind fine or coarse, as desired.

The hole in the top of the box A is made larger than the lower end of the case, to allow the side D to vibrate and be set by the screw S nearer to or farther from the side C, to make the mill grind either coarse or fine.

The screw S passes through the side D, and has a shoulder on it to act against the side D, and then screws into the side C, and it extends through the side of the box A, so as to be turned by the thumb and finger on the outside of the box.

What I claim as my invention and improvements in the above-described mill is—

1. Locking or fastening the top of the mill-case together by making the bottom of the hopper to surround the top of the case, when constructed and operating substantially as described.

2. Making the bottom of the hopper eccentric, or the top of the case eccentric, or both, for the purpose of adjusting the top of the case to make the mill grind fine or coarse, substantially as described.

NATHAN CHAPMAN.

Witnesses:

J. DENNIS, Jr.,
T. C. CONNOLLY.