T. JOHNSON.

COFFEE-MILL.

No. 180,034. Patented July 18, 1876.

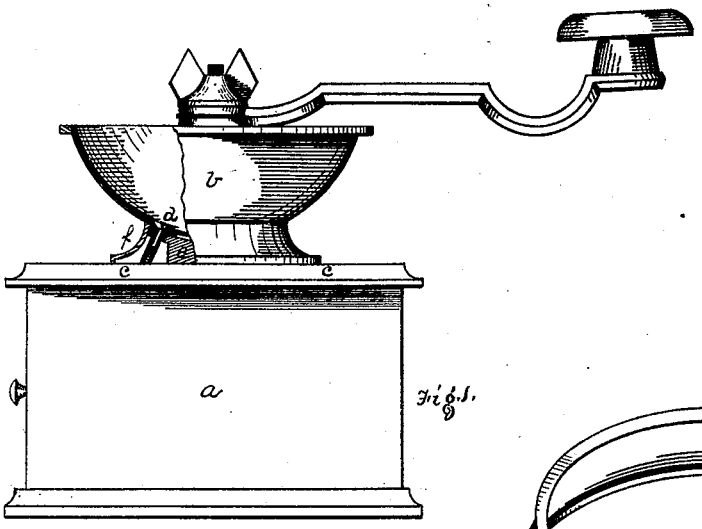

Fig. 1.

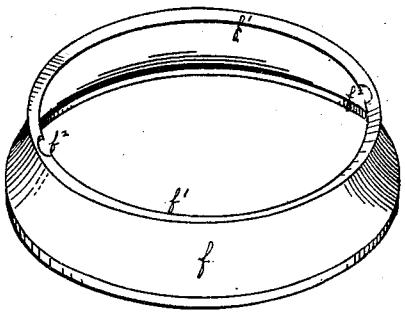

Fig. 2.

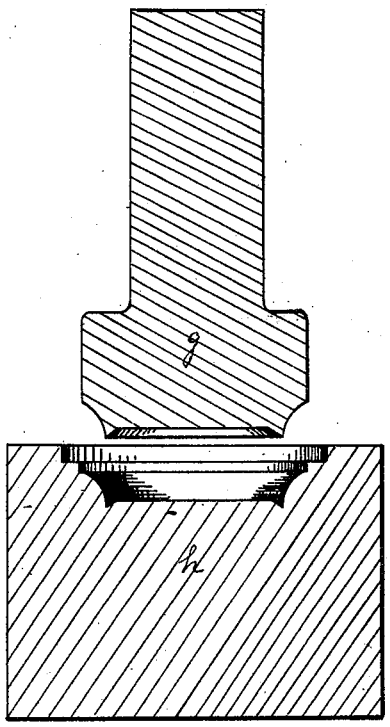

Fig. 3.

Witnesses.

R. Q. Wormshall

L. C. Fitter

Inventor.

Thomas Johnson

by Bakewell & Kerr

his Attorneys.

UNITED STATES PATENT OFFICE.

THOMAS JOHNSON, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR TO JACOBUS & NIMICK MANUFACTURING COMPANY, OF SAME PLACE.

IMPROVEMENT IN COFFEE-MILLS.

Specification forming part of Letters Patent No. **180,034**, dated July 18, 1876; application filed May 1, 1876.

To all whom it may concern:

Be it known that I, THOMAS JOHNSON, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Coffee-Mills; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawing, forming a part of this specification, in which—

Figure 1 is a side view of a coffee-mill embodying my improvements. Fig. 2 is a perspective view of the flange-ring. Fig. 3 is a sectional view of the dies in which the ring is made.

Like letters of reference indicate like parts in each.

My invention consists of a sheet-metal base-ring for coffee-mills, having a set-up inward flange, and securing the same in place between the hopper and grinding-shell by the attachment of the former to the box.

To enable others skilled in the art to make and use my invention, I will describe its construction and use.

The mill *a* is of an ordinary construction in its general parts. The hopper *b*, which rests on the grinding-shell *e*, is secured to the box *c* by screws *d* passing through it, and also through the grinding-shell *e* into the box. The sheet-metal ring *f*, having a flange, *f'*, is secured in place by placing it over the grinding-shell *e*, with the flange *f'* resting upon the top of the grinding-shell. The hopper *b* is then placed on top and rests on the flange *f'* and the shell *e*. The screws *d*, being put in place to secure the hopper to the box, draw the former down firmly upon the flange f^1, and hold the ring *f* tightly in place against the grinding-shell *e*, or, in case the latter is below the level of the box *c*, against the box. The screws *d* pass through the notches f^2; but this is not an essential feature, being only necessary or desirable when a wide flange is made, or when the attachment is loose, in which case it prevents the ring from turning. The ring *f* is formed by means of dies *g* and *h*. A circular ring or blank is first cut from a sheet of tin, copper, or other suitable metal, and is placed on the matrix-die *h*, and stamped into shape by the die *g*, to which power is applied in any suitable manner. This operation sets up the flange *f*, and gives the desired conformation to the ring. The flange f^1 may be composed of serrations or other shaped projections, which operate to secure the ring in place by means of the hopper in exactly the same way as the plain flange.

By my invention I get rid of the heavy cast-iron base-ring heretofore used, and avoid the great expense of spinning or otherwise forming the hopper and ring in one piece, and gain a light, cheap, and very ornamental ring, and, by reason of the great ease and quickness of my improved method of manufacture, I am enabled to produce it with great quickness and at small cost; also, by reason of my improvement in securing, I place this separate ring on the mill without additional cost in fastening or securing the same.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In combination with the hopper and grinding-shell of a coffee or spice mill, the detachable sheet-metal ring, inclosing the grinding-shell, and forming a base or finish for the hopper, substantially as specified.

2. In a coffee or similar mill, a sheet-metal base-ring provided with a flange, extending between the hopper and the grinding-shell, said ring being secured between the box and hopper by means of screws, as described.

In testimony whereof I, the said THOMAS JOHNSON, have hereunto set my hand.

THOMAS JOHNSON.

Witnesses:

JAMES I. KAY,

R. C. WRENSHALL.