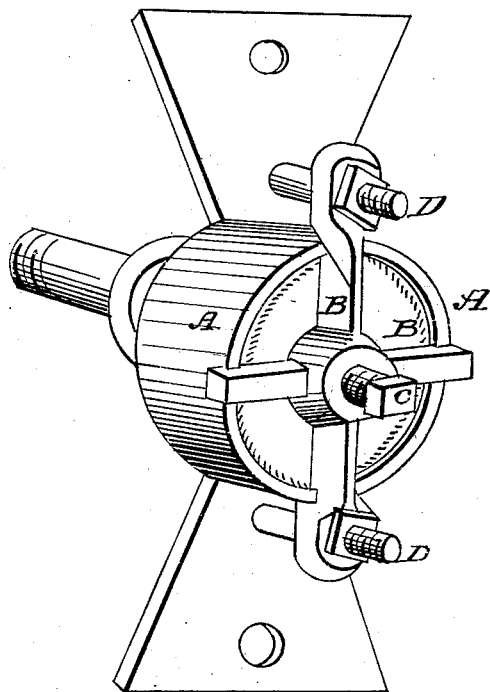


J. RITTENHOUSE.

Coffee Mill.

No. 1,215.

Patented July 2, 1839.



# UNITED STATES PATENT OFFICE.

JOHN RITTENHOUSE, OF PHILADELPHIA COUNTY, PENNSYLVANIA.

MANNER OF CONSTRUCTING COFFEE-MILLS.

Specification of Letters Patent No. 1,215, dated July 2, 1839.

*To all whom it may concern:*

Be it known that I, JOHN RITTENHOUSE, of the county of Philadelphia and State of Pennsylvania, have invented an Improvement in the Manner of Constructing a Mill for Grinding Coffee; and I do hereby declare that the following is a full and exact description thereof.

The kind of mill in which my improvement is made is that in which a conical, toothed nut is made to revolve in a corresponding hollow cone; and the object of my improvement is so to attach the step upon which the lower end of the axis of the nut revolves as to confine it more effectually than has hitherto been done, so as to prevent the teeth of the nut from being forced into contact with those of the hollow cone or shell, by the introduction of any hard substance in the mill along with the coffee. In mills of this description the fine teeth on the lower end of the nut are to revolve, as nearly as possible, in contact with those on the shell, or hollow cone, and if the nut is capable of yielding, even in a slight degree, by the interposition of any hard substance between the nut and the shell, the teeth of the two are forced into contact, and their edges are consequently taken off. The single cross bar which is ordinarily employed as a step, and which is notched into the lower edge of the shell, although it performs its office sufficiently well under ordinary circumstances, has been found to spring or yield, under a hard strain, sufficiently to admit of this injurious effect, even when tightly screwed up, and to obviate this, I have adopted the plan represented in the accompanying drawing, which is a representation of the machine detached

from the wooden box to which such mills are affixed.

A A is the outer shell or hollow cone, and B B is the step through which passes the center screw C to support and regulate the shaft of the revolving nut. This step is made in the form of a cross, and it is notched at each of its ends so as to slip into, or onto, the lower edge of the shell, thus affording it a permanent bearing will effectually secure it from all motion, even when drawn but moderately tight by the screws D D. A similar effect will be produced by making the step with three arms, instead of in the form of a cross, giving it three bearing points upon the periphery of the shell; the step may also have but two arms, extending across, and in one piece with a ring fitting onto the lower edge of the shell, and having a groove, or rabbet, to aid in confining it in place. A fitting of this kind is very easily made as I construct both the shell and step of malleable cast iron.

Having thus fully described the nature of my improvement in the step of a coffee mill, what I claim as my invention, and desire to secure by Letters Patent, is—

The forming such a step as that it shall have three, or more, distinct points of bearing, or bear upon the whole, or the larger portion, of the lower edge of the hollow cone, or shell, the bearings being so notched, or formed, as to check all lateral motion, in the manner herein set forth.

JOHN RITTENHOUSE.

Witnesses:

THOS. F. JONES,  
GEORGE WEST.