C. & E. Parker.

Coffee Mill.

No. 77,649. Patented May 5, 1868.

Fig. 1.

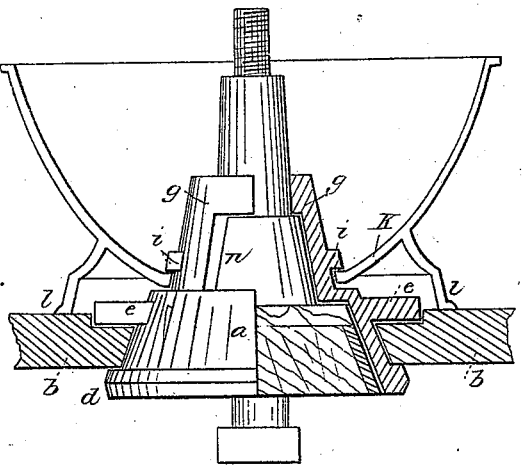
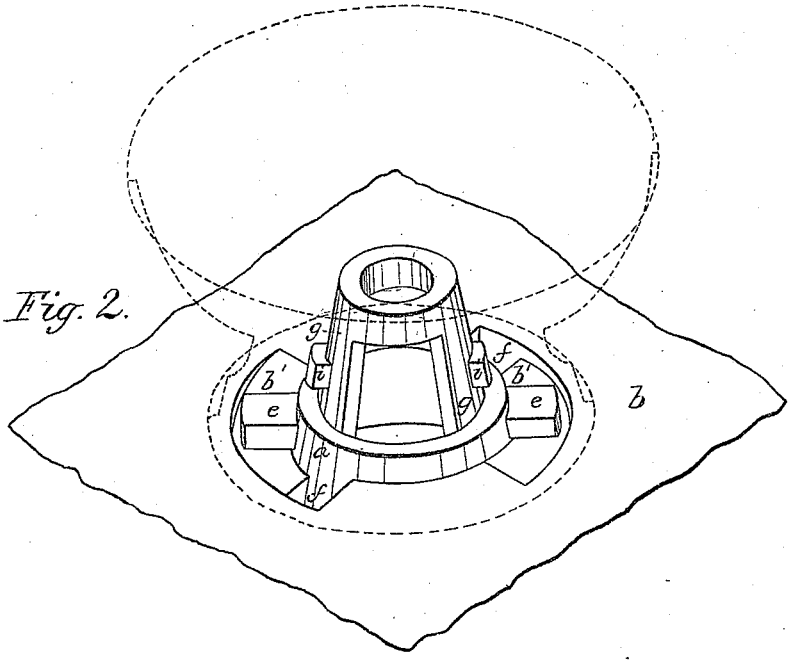


Fig. 2.



Witnesses.
J. P. Pinson
S. H. Maynard

Inventor.
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United States Patent Office.

CHARLES PARKER AND EDMUND PARKER, OF MERIDEN, CONNECTICUT, ASSIGNORS TO CHARLES PARKER, OF SAME PLACE.

Letters Patent No. 77,649, *dated May* 5, 1868.

IMPROVEMENT IN COFFEE-MILLS.

The Schedule referred to in these Letters Patent and making part of the same.

TO WHOM IT MAY CONCERN:

Be it known that we, CHARLES PARKER and EDMUND PARKER, of Meriden, New Haven county, State of Connecticut, have invented certain new and useful Improvements in Coffee-Mills; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being made to the annexed drawing, making a part of this specification, in which—

Figure I is a sectional view, and

Figure II is a perspective view of a portion of the interior of the mill.

Figure III is a section on line *x x* of Fig. I, looking down.

Similar letters indicate similar parts throughout the figures.

Our improvement is particularly applicable to what is known as the box-mill, and it consists—

Firstly, in a manner of so affixing the stationary concave bed to the top board of the box that it can be readily removed, when necessary for cleaning, without taking out any screws or taking off the bottom of the mill.

Secondly, in the manner of so affixing the hopper to the top board that it may be readily removed for cleaning the mill; and

Thirdly, in so grooving the spindle of the runner and the interior of the side-pieces which support the bearings for the upper end of the spindle, as to form a cracker for the grains preparatory to being acted on by the runner.

The construction is as follows: The bed *a* is made to pass through the top of the box *b* in the usual manner; but instead of having projections at bottom, by which it is attached by screws to the under side of *b* in the usual manner, it has a simple rim, *d*, to fit against that under side, and on opposite sides a lug, *e*, is cast, at a sufficient distance above the rim to include between the lug and the rim a considerable portion of the wood of the top board. Through the top, *b*, apertures *f* are cut, to admit of the passing through of the lugs, and from each of those apertures the upper surface of *b* is cut down to such inclination as will form a wedge, as clearly shown in Fig. II, at *b'*, upon which the lugs will ride up when the bed is turned around, so as to bring the rim *d* into contact with the under side of *b*, and thus hold the bed firmly in place. On the exterior of the side-pieces *g* are also lugs, *i*, which, passing through apertures in the inner edge *k* of the bowl of the hopper, hold that down in the same manner as described for holding *a* to *b*. The hopper does not, however, make a joint with any part of *a*, but, by its flange *l*, bears upon the surface of the top board *b*, as clearly shown in Fig. I. The spindle *m* of the runner has longitudinal grooves or teeth, *n*, upon it, which, in combination with similar grooves or teeth on the interior of *g*, as seen in Fig. III, act as a cracker, to break the grains drawn in by the revolution of the spindle, so that those will readily enter between the grinding-surfaces.

The bottom board of these box-mills has been heretofore necessarily put on with screws, inasmuch as from time to time it is desirable that the grinding parts should be taken apart to be cleaned. The bottom had then to be unscrewed, (four screws,) as also the bed (two screws) and the hopper, (two screws,) to separate the parts. By our improvement the hopper is taken off by turning it partially around. Then, by introducing the hand through the opening for the drawer, and turning the bed a little, it is readily taken out. As thus the bottom may be put on with nails, it will be seen that at least eight screws are saved in the construction, thereby reducing the first cost, as well as greatly facilitating the cleaning, inasmuch as no tools are required for taking the mill apart.

It will be observed, in this invention, that the runner is supported at its upper end by the side-pieces *g*, which extend up into the hopper, as clearly seen in Fig. I, the hopper resting below the lugs *i*; that the side-pieces leave an open space directly from the hopper into the runner; that the straight or vertical part of the runner has ribs or teeth formed thereon, while upon the inside of the side-pieces or supports *g*, which are inclined to the straight teeth on the runner, are teeth cut across their face, so that the combined action of the vertical

part of the runner and the inside of the side-pieces *g*, acts as a breaker or cracker when the material is first introduced; and as these open spaces are so far up in the hopper, a large quantity of the material to be ground comes at once in contact with the cracker, so that by this construction we are able to grind very much faster than can be done in mills of common construction.

1. We claim attaching the stationary grinding-bed *a* on to the top board *b* by means of lugs *e*, in combination with the rim *d*, or a part thereof, the lugs entering above and the rim below the top *b*, or *vice versa*, substantially as set forth.

2. We also claim forming a cracker within the hopper, by extending the side-pieces or supports *g* up into the hopper, and so as to form open spaces directly from and within the hopper to the runner, between the said supports *g*, and when the said supports are inclined to the runner as described, and the under and inside of the supports *g* provided with teeth, so as to operate in the manner specified.

In witness whereof, we have hereunto subscribed our names.

CHAS. PARKER,
EDMUND PARKER.

Witnesses:
JOHN W. MILES,
JOHN PARKER.