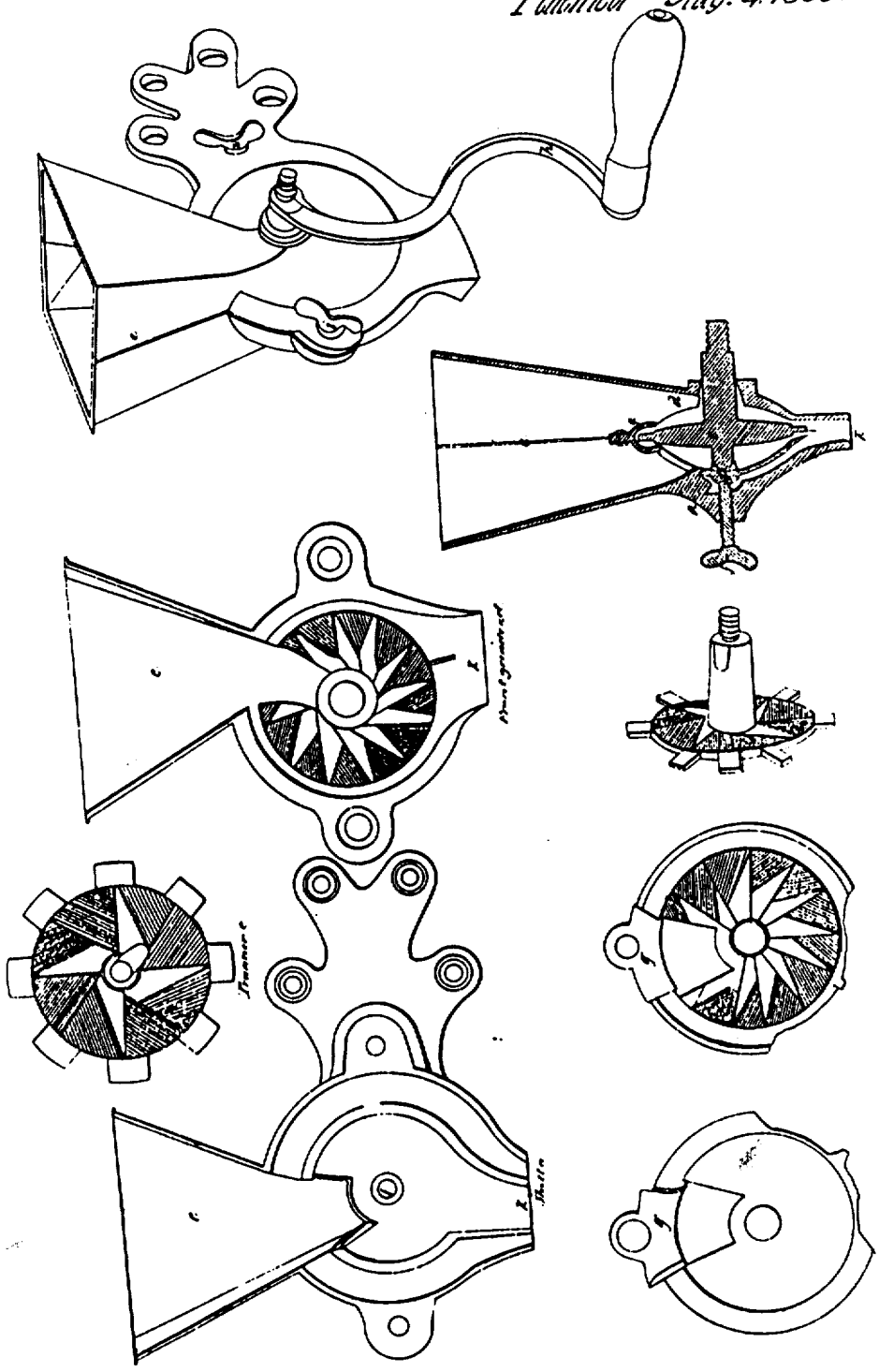
A. Clark.

Coffee Mill.

7696½ X

Patented Aug. 4 1833



8/14/1833 7696 1/2X

Aug. 14. 1833

Ammi Clark's Coffee Mill
Letters Patent

The Schedule referred to in these Letters Patent and making part of the same containing a description in the words of the said Ammi Clark himself of his improvement in the Coffee Mill

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Be it known that I Ammi Clark of Berlin in the County of Hartford and State of Connecticut have invented a new and useful improvement in Machinery for grinding Coffee and other substances, and that the following is an exact description of the same as made and improved by me, The mill thus improved may consist of five pieces. First The back part which is composed of the back shell, one half of the hopper, the plate, the cone and one half of the spout. Secondly The back grinder which is moveable and of a convex concave form, of a size suited to the back shell and resting with its convex side on the concave side of the back shell. Thirdly, A convex concave runner with grinding teeth, on both sides, having an axle with bearings attached, with a flange on the periphery, cut or divided as herein after specified. Fourthly The front grinder of a concave convex form, from which extends the front half of the hopper, spout, and cone, Fifthly— The circular segment connected to and forming a head on one side, and a fulcrum on the other with an eye by which it is secured or otherwise attached to the back. Thirdly The back shell is concave on one side, and convex on the other, with a circular flute, on the outer circle to admit the corresponding head, on the back grinder, and the grinding rim of the same, to a depth nearly of the thickness of the flange, segment, on the runner within the outer circle of the shell. The circular flute of the back shell, is cut away, on the upper side sufficiently to admit the back half of the hopper, the lower part whereof perfectly on the concave surface of the shell, below the circular flute, a competent length, to permit the substance to be ground, from passing between the grinders and the shell— The back grinder, having before mentioned as the second piece has a square [illegible] on the concave side, with a circular flute bounding the grinding rim on [illegible] about one third of the flanching of the runner

bottom is back is open. The outside edge of this flat from the grinding surface which of course the same distance as the pumping of the flute, on the opposite of the back grinder, where it passes through the hopper and above the grinding surface is a semi circular section, about half the thickness of the flange, in the manner, to which projection is attached an ear, Between the circular flute, and the outside of the back grinder, near the opposite side thereof, is an opening sufficient to admit the lower extremity of the hopper, when it projects as aforesaid, in the bottom of the back shell, and to permit the substance to be ground to fall to the runner. The flange of the runner aforesaid, is not continuous, but separated into segments of convenient distances from each other, and extends from the edge of the grinding surface, as far as the circular flute, so as to bear upon the grinding surface, from wearing each other, while it facilitates the cleaning of the mill. The inner, or concave surface of the front grinder, is similar to the inner, or concave surface of the back grinder, from this front grinder extend in three proper places, one half of the front, one half of the hopper, and the ears by which the mill is secured together. On the outer edge of the annular grinding, and projecting a little beyond it, is another circular rim, corresponding with a like rim, on the back shell and applying thereto, when the mill is fastened together. The hopper being inserted near the opposite side, makes a bearage or opening on the annular flute. The circular segments, with a flute, and head, herein before mentioned, at the fifth piece, fill out and supplies this opening, making by its insertion the circular flute continuous through the hopper. The mill is regulated by means of a screw passing through the centre of the back shell, and pressing against the back grinder, more or less, as the substance to be ground may require. The Mill, stands of course in a vertical position, and is turned by a crank.— The mill above described, consists of five pieces, but the improvement is applicable to mills having a greater or less number of pieces than five; and the forms may be various. For example, a mill may be made with the plate, or the front grinder, and a strap or bar of iron to go to the back grinder, to supply the place of a back shell, with a spring in the back grinder to admit the back leg of the hopper. a mill may be made without a hopper separate from the front grinder, it being left thereon to admit

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153

a part of the hopper with cams near the top thereof to secure the parts together, and in this form the annular flute can be continued through the hopper with the annular segment, as in the mill herein first described: or, the part of the annular flute of the back grinder, passing through the hopper (and equal in angle to the circular segment) may be made separate from the grinder, and inserted therein, being formed to the circular segment, or the said part of the annular flute, and the circular segment may be united and made a whole distinct piece, so that in either case the segments of the flange will pass through a contrary annular flute. & the mill may be set at the hopper to a board with a hopper of tin or any suitable material. The present specification describes an improvement of the double mill, for grinding coffee, for which I have already obtained Letters Patent. The pieces, composing this double mill, and improvement, are of cast iron, but may be made of any other suitable materials.

I claim herein as my invention or improvement the following things, namely to wit, the carrying of the annular flute, and the grooves through or among the hopper and the application to mills for grinding coffee and other substances, of the flange or the removable separated into segments at convenient distances from each other as herein before inserted, Dated at Boston aforesaid this 17th day of June A.D. 1852.

Witnesses
Lewis Barnes
Luther Bulkley

Emmi Slade

(1162 1880)