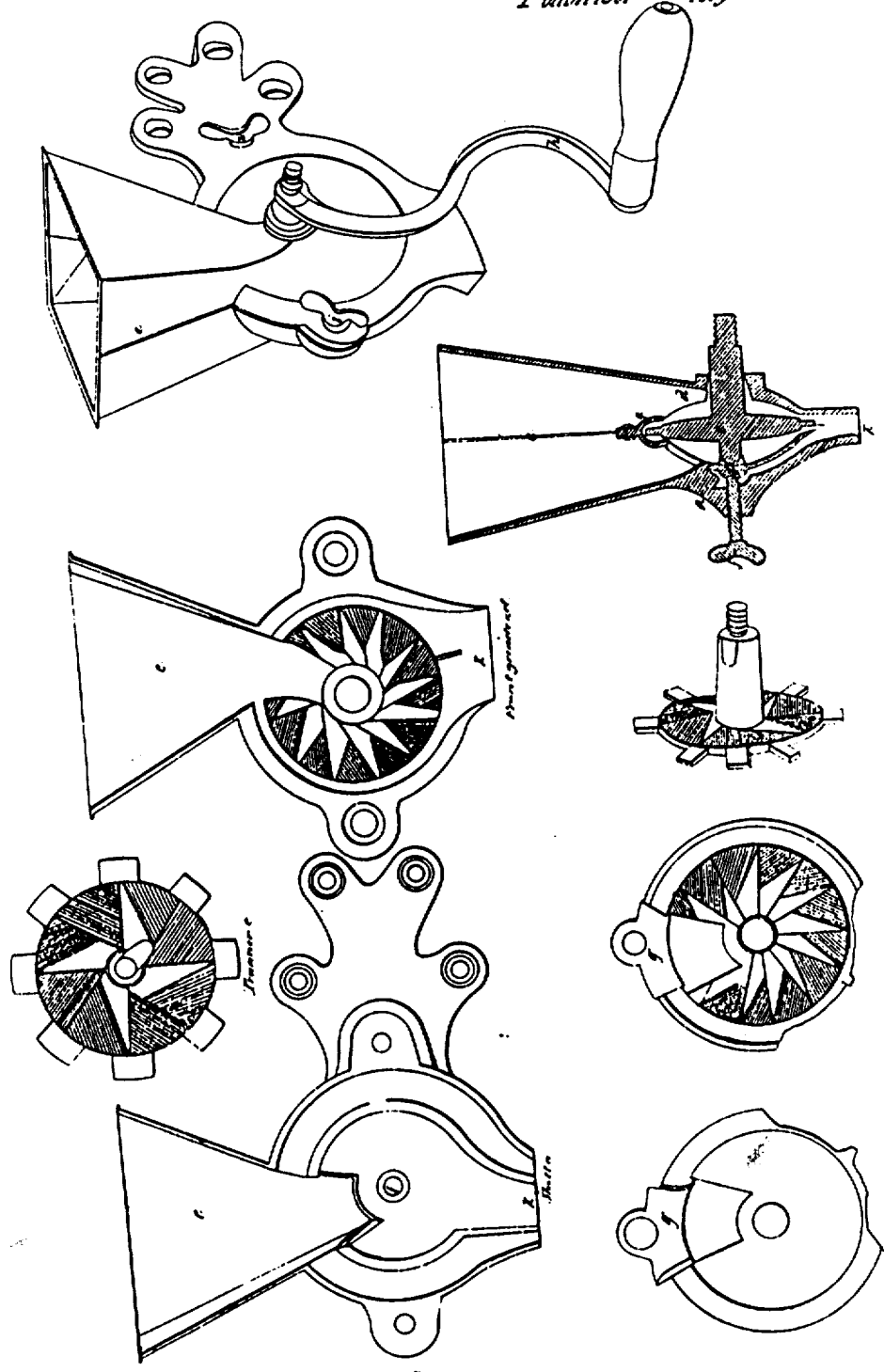


A. Clark.

76962 X

Coffee Mill.

Patented Aug. 4. 1833



8/14/1833

7696/2x

Aug. 14, 1833

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Ammi Clark's Coffee Mill
Letters Patent

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

Be it known that Ammi Clark of Boston in the County of Middlesex and State of Massachusetts has 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 invented or 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 case and one half of the spout. Secondly The back guide which is made of a concave concave form of a size suited to the back shell and resting with its concave side on the convex side of the back shell. Thirdly A convex-concave runner with grinding teeth on both sides, having an axle with bearings at both ends, with a flange on the periphery, cut or divided as herein after specified. Fourthly The front guide of a concave concave form, from which extends the front half of the hopper, spout, and case, Fifthly The circular segment around so as to form a head on one side, and a flute on the other with an ear by which it is secured or otherwise attached to the back. Grinders The back shell is concave on one side, and convex on the other, with a circular flute, on the outer side to admit the corresponding head, on the back guide, and the guard 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 where it projects on the concave surface of the shell, below the circular flute, a competent length, to prevent the substance to be ground, from passing between the guide and the shell. The back guide, herein before mentioned as the second piece has a grinding surface on the concave side, with a circular flute bounding the grinding surface, all round except above on that of the periphery of the

bottom which is open. The outer edge of this flange forms the guard rim, which extends the same distance on the periphery as the flute. On the opposite side of the back grinder, where it passes through the hopper and above the guard rim is a small projection, about half the thickness of the flange. On the inner side, to which projection is attached, an ear. Between the circular flute, and the center of the back grinder, near the upper side though, is an opening sufficient to admit the lower extremity of the hopper, where it projects as a spur, on the surface of the back shell, and to permit the substance to be ground to pass to the runner. The flange of the runner of course, is not continuous, but separated into segments at convenient distances from each other, and extends from the edge of the grinding surface, across the circular flute, so as to bear upon the guard rim, and prevent the grinding surfaces, from wearing each other, while it facilitates the cleaning of the mill. The inner, or convex surface of the front grinder, is similar to the inner, or concave surface of the back grinder, then this front grinder extends in their proper places, one half of the extent, one half of the hopper, and the ears by which the mill is secured together. On the outer edge of the circular guard rim, and projecting a little beyond it, is another circular rim, corresponding with a like rim, on the back shell and applying shafts, when the mill is fastened together. The hopper being inserted near the upper side, makes a bearing or bearing in the circular flute. The circular segments, with a flute, and head, having before mentioned, as the fifth piece, fill out and supply this vacancy making by its insertion the circular flute, continuous through the hopper. The mill is regulated by means of a screw passing through the center 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 same 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, on the front grinder, and a steep or bar of iron on the back grinder, to supply the place of a back shell, with a spur in the back grinder or to admit the back half of the hopper, or a mill may be made with the hopper separate from the front grinder, a spur being left there to admit

a part of the hopper with one near the top thereof to secure the parts together, and in this form the circular flute can be continued through the hopper into the circular segment, as in the mill herein first described: or, the part of the circular flute of the back gear, passing through the hopper, and equal in size to the circular segment may be made separate from the grinder, and inserted therein, being screwed to the circular segment, or the said part of the said circular flute, and the circular segment may be united and made a whole circular piece, so that in either case the segments of the flange, will pass through a continuous circular flute - Or the mill may be cast, as to be applied to a board with a hopper of tin or any suitable material. The preceding specification describes an improvement of the double mill, for grinding coffee, for which I have already obtained a U.S. Patent. The pieces forming this double mill, and improvement, are of cast iron, but may be made of any other suitable material.

I claim herein as my invention or improvement the following things, namely to wit, the carrying of the circular flute, and the guard rim through or across the hopper and the application to mills for grinding coffee and other substances, of the flange or the rim, separated into segments at convenient distances from each other as herein before described, Dated at Berlin of our side this 17th day of June A.D. 1833.

Witnesses
 Ben Barnes }
 Luther Bulkeley }

Samuel Black

(1162 words)