No. 662,128. Patented Nov. 20, 1900.

S. A. MITCHEL.

COFFEE MILL.

(Application filed Jan. 16, 1899.)

(No Model.)

Fig 1

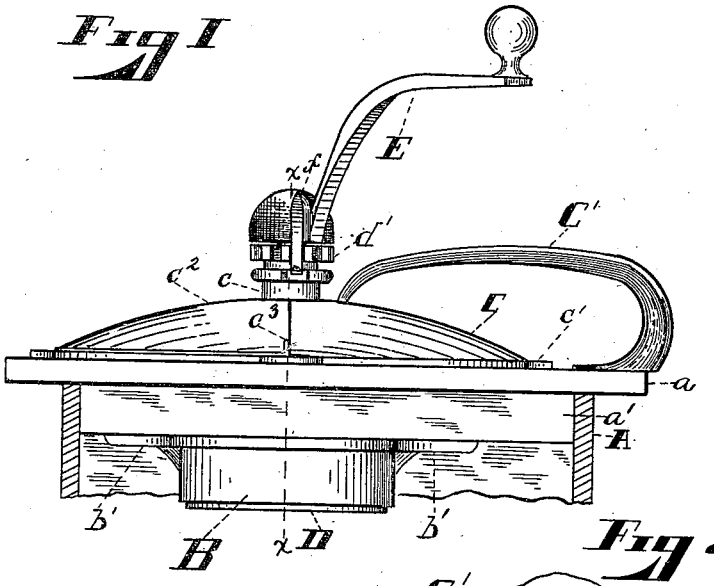


Fig 3

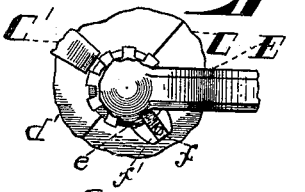


Fig 2

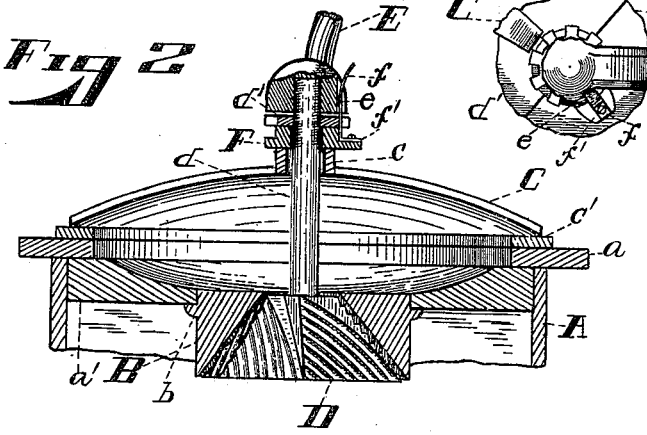
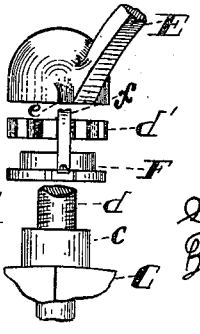


Fig 4



WITNESSES

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SAMUEL A. MITCHEL, OF GREENFIELD, OHIO, ASSIGNOR TO THE SUN MANUFACTURING COMPANY, OF SAME PLACE.

COFFEE-MILL.

SPECIFICATION forming part of Letters Patent No. 662,128, dated November 20, 1900.

Application filed January 16, 1899. Serial No. 702,222. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL A. MITCHEL, a citizen of the United States, and a resident of Greenfield, in the county of Highland and State of Ohio, have invented certain new and useful Improvements in Coffee-Mills, of which the following is a specification.

My invention relates to coffee and other grinding mills, and particularly to means for adjusting the grinding-surfaces so as to grind coarser or finer, as desired.

The invention will be first fully described in connection with the accompanying drawings and then particularly referred to and pointed out in the claim.

Referring to the drawings, in which like parts are indicated by similar reference-letters wherever they occur throughout the various views, Figure 1 is an elevation of the upper part of a coffee-mill provided with my improvements, the side below the top flange of the box-cover being broken away in section to show the grinding cone and shell. Fig. 2 is a central vertical section of the same, taken on line x x of Fig. 1. Part of the handle, the stem or spindle, and the grinding-cone are shown in elevation. Fig. 3 is a detail plan view of the locking adjustment, the crank-handle being partly broken away to expose the adjusting-nut. Fig. 4 is a detail view in elevation, upon a somewhat-enlarged scale, of the parts shown in Fig. 3 detached.

Referring to the parts, the sides of the box or case of the mill are represented by A, and the top, which projects over the sides, by a. To the under side of this top is secured or formed integral with it the under extension a', which fits into the top of the case A. The hopper is formed in the top a and a', and to the under side of the top a is centrally secured the grinding-shell B, which has an annular flange b to bear against the under side of the top and laterally-extended lugs b', by which the shell is secured in place. On the cover a is secured the metal top C. One half of the top, including the boss c and ring or foundation c', is cast in a single piece, and the opposite half c^2 is pivoted to one side of the ring and has a laterally-projecting lug which receives a screw, by which it is pivoted to the ring to permit it to swing open or closed, and also with an upwardly-projecting finger-piece or lug c^3 to open or close the cover. B represents the grinding-shell, D the grinding-cone, and C′ the handle, secured to the top a and to the rigid part of the cover C. The parts above referred to are of the usual construction and need not therefore be specifically described. To the top of the cone D is secured the spindle d, which is journaled in the boss c of the cover and has its upper end screw-threaded to receive the adjusting-nut d', by which the grinding-surfaces are adjusted with relation to each other to grind coarser or finer, as desired. Upon the upper end of this screw-threaded spindle is secured the crank-handle E, the hub of which is notched at e to receive the spring f, which is seated in a laterally-projecting lug f' from a washer F, which is loosely fitted on the spindle d when the spring passes into one of the notches in the adjusting-nut d'. When the spring f is withdrawn from one of the notches of the adjusting-nut and held withdrawn, the adjusting-nut may be turned in either direction to separate or bring closer together the grinding-surfaces. When the proper adjustment is attained, the spring is released, fitting into one of the notches of the adjusting-nut and the notch e in the crank-handle, thereby coupling the adjusting-nut, washer, and handle together, so that the grinding-surfaces will maintain their relative predetermined positions, while the crank-handle is turned until it is desired to change the adjustment.

As before stated, the principal object of my invention is to adjust the grinding-surfaces with relation to each other and lock them in the adjusted position until a change is desired.

It is obvious that the above-described improvement may be applied without invention to other forms of grinding-mills than the specific form shown in the drawings, and while I have shown my invention applied to a popular form of hand grinding coffee-mills I do not desire to limit my invention to this well-known form, because it is equally applicable

to other forms and may be as advantageously applied to them as to the particular form I have shown.

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

In a grinding-mill of the character described the combination of the case having the shell or concave grinding-surface secured to the under side of its top, the hopper formed in the top of the case, the cover secured on the top of the case over the hopper and having a boss to serve as a journal for the spindle of the grinding-cone, the grinding-cone having a stem projecting through said boss and screw-threaded on its end protruding beyond the boss, a screw-threaded adjusting-nut to engage the screw-threaded end of said stem having its periphery notched to receive a locking-spring, a handle upon the end of said stem, a loose washer sleeved over said stem and a spring secured upon said washer to engage any of the notches in the adjusting-nut and the handle and lock the adjustment of the grinding-surfaces, substantially as shown and described.

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Witnesses:
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