A. SHEPARD.

Coffee and Spice Mill.

No. 206,141. Patented July 16, 1878.

Fig. 1.

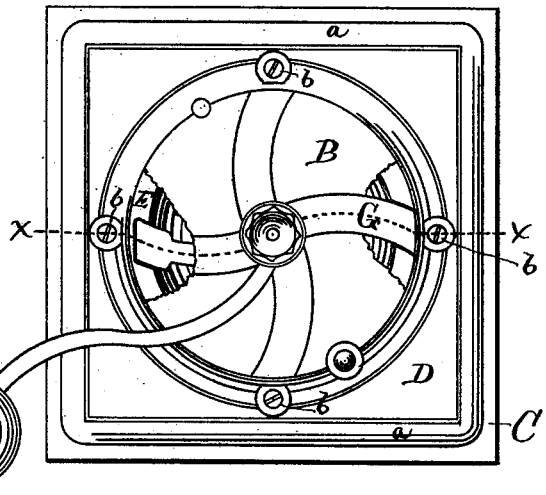
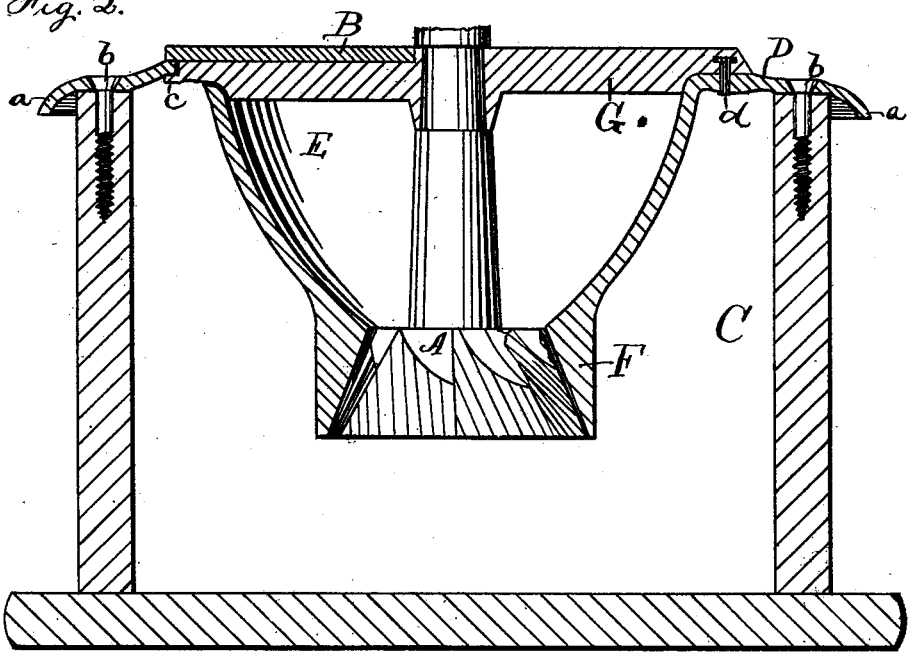


Fig. 2.



Witnesses.

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UNITED STATES PATENT OFFICE.

AMOS SHEPARD, OF PLANTSVILLE, ASSIGNOR TO PECK, STOW & WILCOX COMPANY, OF SOUTHINGTON, CONNECTICUT.

IMPROVEMENT IN COFFEE AND SPICE MILLS.

Specification forming part of Letters Patent No. **206,141**, dated July 16, 1878; application filed October 26, 1877.

To all whom it may concern:

Be it known that I, AMOS SHEPARD, of Plantsville, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Coffee or Spice Mills, of which the following is a specification:

My invention consists in the construction of the box-top, hopper, and grinding-shell, in the manner hereinafter described; also, in the peculiar construction of the hopper and cross-bar, with a hook and projections on one part and corresponding recesses on the other part, as hereinafter described.

In the accompanying drawing, Figure 1 is a plan or top view of a mill which embodies my invention, the same being represented with the cover partially broken away, in order to better show the other parts; and Fig. 2 is a vertical section of the same, partly in elevation, the latter figure being represented on a scale twice as large as the scale employed for Fig. 1.

The adjusting device, grinding-nut A, and swinging cover B are the same as shown in my Patent No. 186,889, dated January 30, 1877. The box C, with the exception of its top, is the same as those now in common use.

D designates the box-top, formed with a flat seat upon its under side to fit the top edge of the box C, outside of which seat the top drops downward and outward, forming a depending rim, *a*. Directly over the flat seat and the sides of the box C are screw-holes, through which screws *b b b b* are passed to secure the top and box together.

In the middle of the top D the metal is deflected first slightly upward and then downward to form the hopper E, at the lower end of which, and of the same piece of metal, is the grinding-shell F. Extending across the top of the hopper E is the cross-bar G, in which is the bearing for the shaft of the grinding-nut A.

It will be seen that by this construction the top D constitutes an outwardly-projecting flange at the upper edge of the hopper. At the top edge of the hopper there is a recess, one on each side, that upon one side being shallow with a rivet-hole through the metal under it, and that upon the other side being deeper, so that it extends through the metal at the point of its greatest upward deflection. The recesses are of such form as to fit and receive the projections on the ends of the cross-bar, which are thinner than the body of said bar, whereby shoulders are formed which engage the inside of the hopper, as shown. The end which rests in the deepest recess is offset to form the hook or projection *c*, and the other end is provided with a pin or rivet, *d*, preferably cast in. If desired, a screw might be substituted for this rivet *d*.

The cross-bar is inserted and secured by first passing the hook *c* through the deep or open recess (shown at the left in Fig. 2) and under the metal in the box-top D, so as to hold that end in place. The other end is then dropped into its recess, and the rivet *d* is passed through the hole made to receive it when its end is headed, and the cross-bar is rigidly held in place in a very cheap, simple, and efficient manner.

By making the box-top, hopper, and grinding-shell of the form described, and all in one piece, the entire grinding mechanism can be set up and fitted wholly independent of the box, whereby the box is not soiled in setting up, neither is any extra labor or caution necessary in order to prevent soiling the box, as the mill can be set up and fitted in one room by one set of hands, and the top attached to the box in another and cleaner room by another set of hands.

One set of fastening screws or pins answers for two sets as mills have heretofore been made. The mill is stronger and more durable, and at the same time it can be produced at a reduced cost.

I claim as my invention—

1. In a box-mill, the hopper constructed with a laterally-projecting flange, which forms the top of the mill, and adapted for securing it to the box, substantially as described, and for the purpose specified.

2. In a coffee or spice mill, the combination

of the following elements, viz: First, the hopper formed with an outwardly-turned flange or box-top at its upper edge, and provided with recesses on two opposite sides; second, the cross-bar provided with projections at each end, and at one end with the hook *c*, which takes under the outwardly-turned flange of the hopper; and, third, a single screw or rivet which takes into the flange of the hopper at the end of the cross-bar which is opposite the hook, substantially as described, and for the purpose specified.

AMOS SHEPARD.

Witnesses:

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EDWIN G. LEWIS.