2 Sheets—Sheet 1.

F. HASDENTEUFEL.

Coffee-Mill.

No. 218,627. Patented Aug. 19, 1879.

Fig. 1.

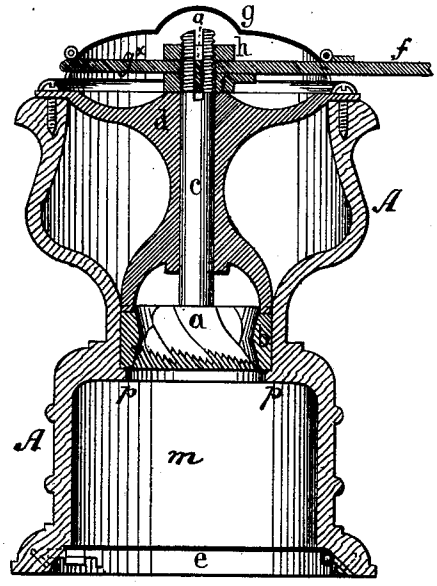


Fig. 5.

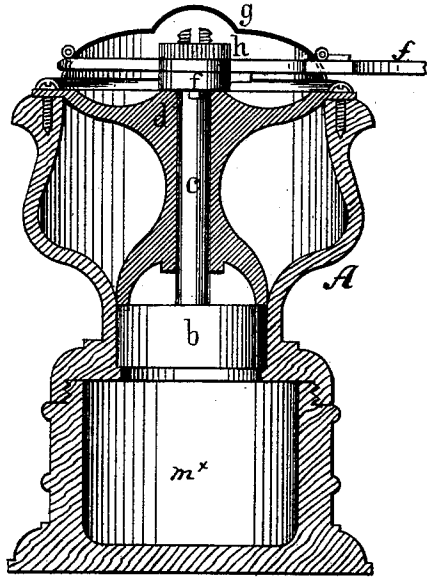


Fig. 2.

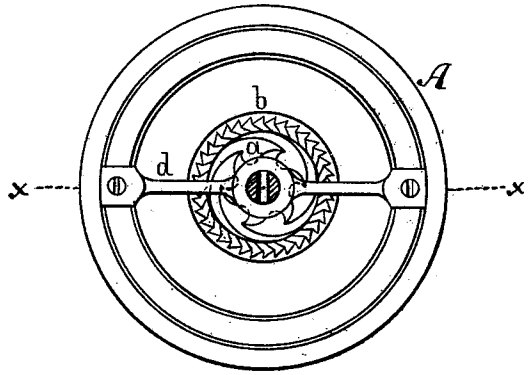


Fig. 6.

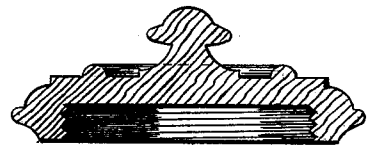


Fig. 3.

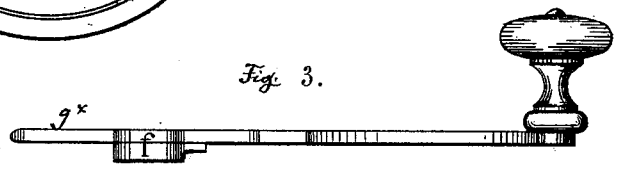
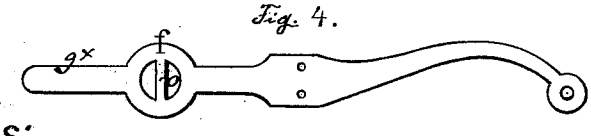


Fig. 4.



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2 Sheets—Sheet 2.

F. HASDENTEUFEL.

Coffee-Mill.

No. 218,627. **Patented Aug. 19, 1879.**

Fig. 7.

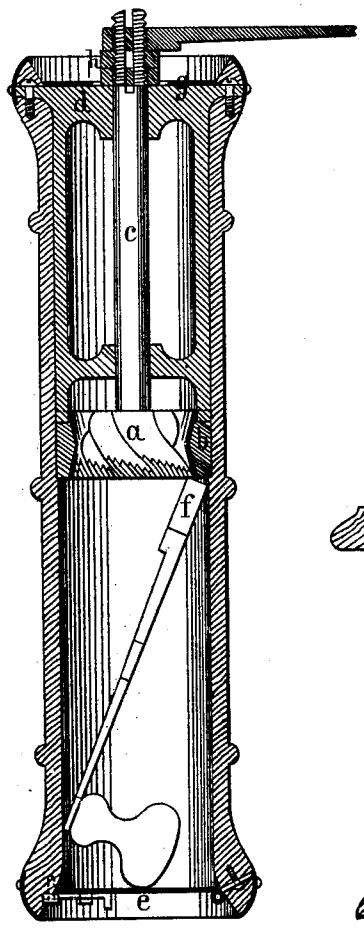


Fig. 10.

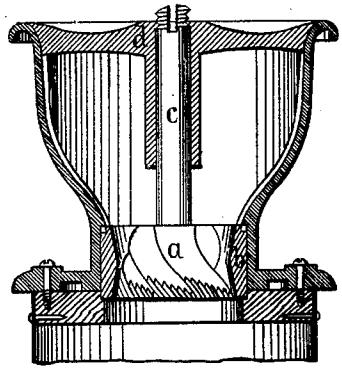


Fig. 11.

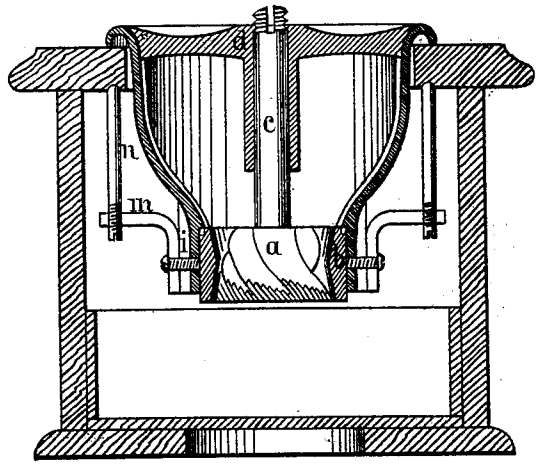


Fig. 8.

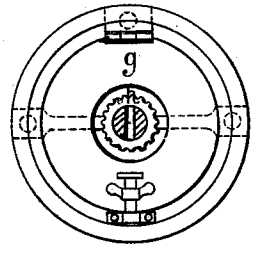


Fig. 9.



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UNITED STATES PATENT OFFICE.

FRIEDRICH HASDENTEUFEL, OF ISERLOHN, GERMANY.

IMPROVEMENT IN COFFEE-MILLS.

Specification forming part of Letters Patent No. **218,627**, dated August 19, 1879; application filed May 16, 1879.

To all whom it may concern:

Be it known that I, FRIEDRICH HASDENTEUFEL, of Iserlohn, in the Empire of Germany, have invented a new and Improved Coffee-Mill, of which the following is a specification.

This invention relates to an improved hand-mill for grinding coffee, pepper, and other articles.

The invention consists of the several features of improvement hereinafter more fully pointed out.

In the accompanying sheets of drawings, Figure 1, Sheet 1, represents a vertical central section of my improved coffee-mill, the line *x x*, Fig. 2, indicating the plane of section. Fig. 2, Sheet 1, is a top view of the same with the cover and handle removed. Fig. 3, Sheet 1, is a side view, and Fig. 4, Sheet 1, a top view, of the hand-lever or handle. Fig. 5, Sheet 1, is a vertical central section, partly in side view, of a modification of my invention. Fig. 6, Sheet 1, is a vertical central section of a cover pertaining to the modification shown in Fig. 5. Figs. 7, 10, and 11, Sheet 2, are vertical central sections of modifications of my invention. Fig. 8, Sheet 2, is a top view of the modification shown in Fig. 7, with the hand-lever removed. Fig. 9, Sheet 2, is a top view of such hand-lever.

Similar letters of reference indicate corresponding parts in all the figures.

With special reference to Figs. 1, 2, 3, and 4 of the drawings, the letter A represents the case or body of my improved coffee-mill, made of wood or other material, and of cylindrical or other form. The body or shell A of the mill is provided at or near its center with an inwardly-projecting shoulder or seat, *p*, upon which rests the concave or grinding cylinder *b*, which is provided with inwardly-projecting teeth, in the usual manner.

The grinding-cylinder *b* is held in place against the shoulder *p*, and prevented from revolving by a tubular brace, *d*, that is inserted within the upper part of the shell A, said brace being provided with two upper arms, that are sunk into notches in the upper edge of the shell, and with two lower arms, that enter notches in the upper edge of the grinding-cylinder *b*. The upper arms of the brace *d* are fastened to the shell by screws or other fastening devices. Through the central tubular opening of the brace *d* projects the spindle *e* of the grinding-cone *a*. The upper portion of the spindle *e* is slotted lengthwise, and screw-threaded where it extends above the brace *d*.

f is the hand-lever for revolving the spindle *e* and the grinding-cone *a*. This lever is provided with two apertures, that are separated by a bridge, *o*, the aperture and bridge being of such size that the lever may be slid over the upper slotted part of the spindle *e*, the bridge entering the slot of the spindle.

h is a nut screwed upon the spindle *e*, above the lever *f*, and serving to hold the hand-lever, and also the spindle, in position.

It will be seen that the bridge on the lever *f*, fitting into the slot of the spindle *e*, insures the transmission of rotary motion from the hand-lever to the spindle.

By screwing the nut *h* farther up or down, the cone *a* will be lowered or raised in the grinding-cylinder *b*, and the mill may thereby be adjusted to grind finer or coarser.

The cover *g* of the mill is hinged to the lever *f*, and revolves with said lever. The lever *f* is provided with an arm, $g^{\times}$, and the cover *g* slotted for the reception of the arm $g^{\times}$, or otherwise constructed to rest on the arm $g^{\times}$ when the cover is closed.

The shell A constitutes a receptacle, *m*, below the grinders *a b*, for the ground coffee. I prefer to provide the chamber *m* with a hinged bottom, *e*, which may be secured in place by a suitable bolt. If the bottom is swung open the ground coffee may be discharged.

In the construction shown in Fig. 5 I do not use a hinged bottom; but the lower part, $m^{\times}$, of the coffee-mill—to wit, that part which receives the ground coffee—may be unscrewed, and may be used separately in connection with the cover. (Shown in Fig. 6.)

In Figs. 7, 8, and 9 the construction of the coffee-mill is substantially the same as above described; but its form is somewhat varied, and more particularly adapted for travelers, who may detach the hand-lever and place it in the lower receptacle, *m*, of the coffee-mill.

In this construction, moreover, the hand-lever is situated above the nut *h*, and the cover is placed upon the top of the mill, below the handle *f*.

In Figs. 10 and 11 the brace *d* is shown to be rigidly connected with a metallic lining or funnel for the upper receptacle of the coffee-mill. In Fig. 11, moreover, the grinding-cylinder *b* is held in place by lugs *i*, angle-pieces *m*, and screws *n*.

I claim—

1. The combination, in a coffee-mill, of the inner grinding-cylinder, *b*, with the grinding-cone *a*, having the spindle *c*, which is slotted, and screw-threaded at its upper end, with the hand-lever *f*, having the bridge *o*, and adapted to fit over the slotted portion of the spindle *c*, and with the nut *h*, the grinding-cone being vertically adjustable within the grinding-cylinder, substantially as specified.

2. The combination, in a coffee-mill, of the rotary spindle *c* and its hand-lever *f*, having arm $g^{\times}$, with the cover *g*, which is slotted for the reception of such arm, substantially as and for the purpose specified.

This specification signed by me this 8th day of April, 1879.

FRIEDRICH HASDENTEUFEL.

Witnesses:

FRIEDRICH CARL GLASER,

CARL T. BURCHARDT.