(No Model.)

D. W. PARKER & F. H. CHAPMAN.

Domestic Grinding Mill.

No. 233,010. **Patented Oct. 5, 1880.**

Fig. 1.

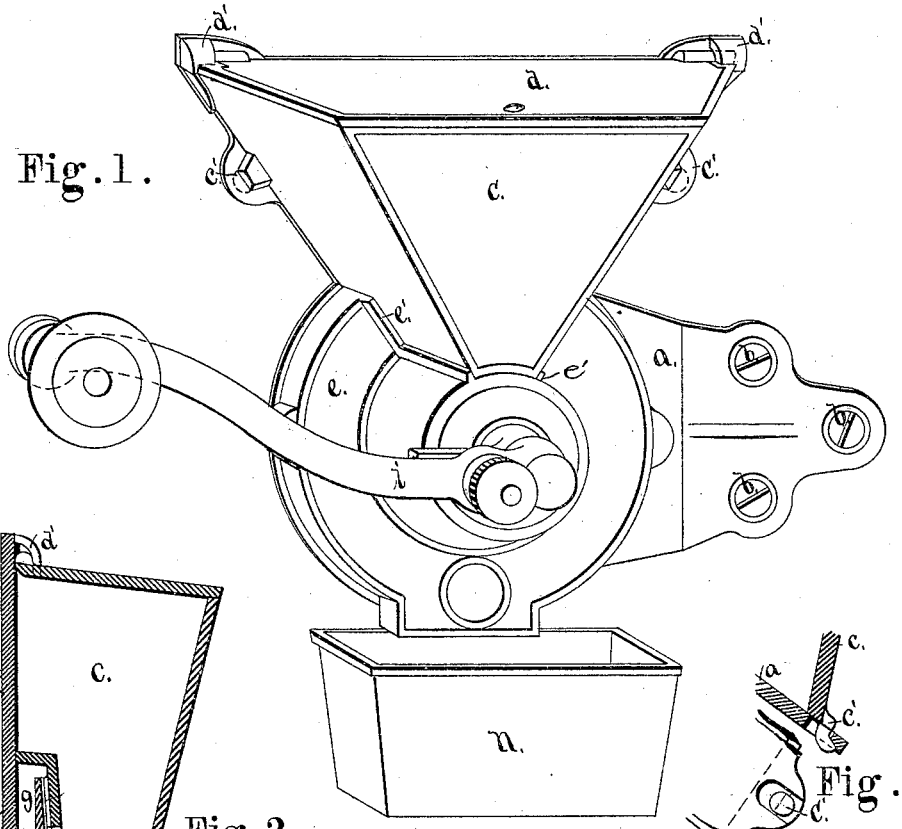

Fig. 2.

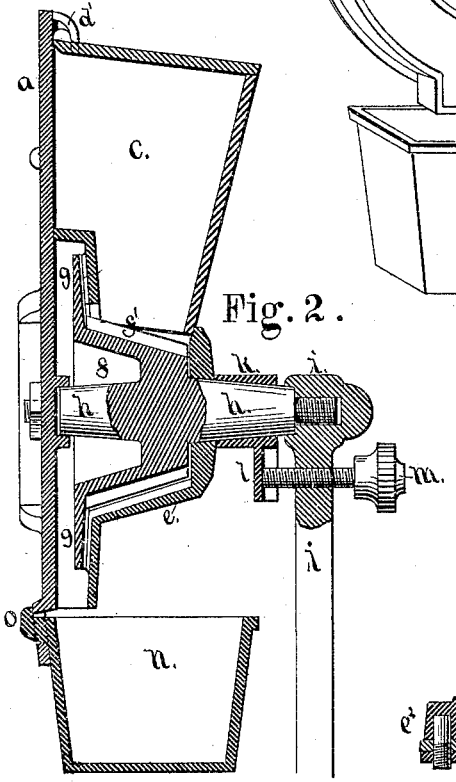

Fig. 4

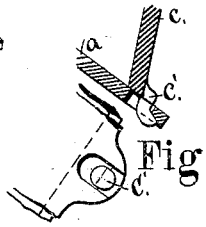

Fig. 3.

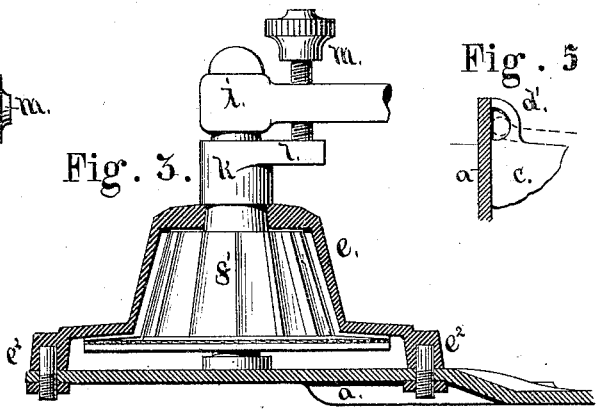

Fig. 5

WITNESSES:

Joseph A. Miller Jr

Wm. L. Coop

INVENTOR

Dexter W. Parker

Frank H. Chapman

by Joseph A. Miller atty

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

DEXTER W. PARKER AND FRANK H. CHAPMAN, OF MERIDEN, CONNECTICUT, ASSIGNORS TO THE CHARLES PARKER COMPANY, OF SAME PLACE.

DOMESTIC GRINDING-MILL.

SPECIFICATION forming part of Letters Patent No. 233,010, dated October 5, 1880.

Application filed April 29, 1880. (No model.)

To all whom it may concern:

Be it known that we, DEXTER W. PARKER and FRANK H. CHAPMAN, of Meriden, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Domestic Grinding-Mills; and we hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification.

This invention has reference to an improvement in the construction of that class of grinding-mills used in the household for grinding coffee and spices, which are known in the trade as "side mills," being constructed so as to be firmly secured against some part of the room or building; and the invention consists in certain features of construction and combinations of parts in a domestic grinding-mill as will hereinafter be described, and pointed out in the claims.

Figure 1 is a perspective view of the improved domestic grinding-mill. Fig. 2 is a vertical sectional view of the same. Fig. 3 is a horizontal sectional view, showing the runner, the means for adjusting the degree of fineness, and the means of securing the concave to the plate. Fig. 4 shows the manner in which the hopper is secured, and Fig. 5 the means by which the lid is hinged and held.

In the drawings, *a* represents the back plate, constructed so as to receive all the parts of the mill, and provided with the holes *b b*, so that it can be firmly secured against a wall, door, or other surface.

c is the hopper, made of cast metal, and secured to the plate *a* by the pins *c' c'*, cast on the hopper, which pins, passing through holes in the back plate, are pinched over, as is shown in Fig. 4, and firmly hold the hopper in place.

The lid *d* is hinged in the bearings *d' d'*. These bearings are cast on the hopper, the pins on the lid are inserted, and when the hopper is secured to the back plate the hinged lid and hopper are completed without the use of skilled labor.

e is the concave, provided with the ribs *e'* on each side of the hopper. This concave is cast complete, so as to require no fitting. The short bolts e^2 e^2 are cast into the concave, and by them the concave is secured to the plate *a*.

All the vertical surfaces of the concave and of the hopper are made sloping toward the center, so that the same can be readily and cleanly molded and the pattern easily withdrawn from the sand. A clean casting is thus secured with little labor in molding.

f is the runner, provided with two grinding-faces, the face *f'* being a conical breaking-face, and the flat face *g* forming a flange, bearing against the nearly flat face of the concave.

h is the spindle of the runner. It is made tapering on both ends, and, as all the surfaces of the runner are tapering, the whole can be easily molded and cast. The rear plate, *a*, is provided with a step, in which the spindle *h* rests, at the rear end, and the concave is provided with a hole, through which the front end of the spindle projects. The front end of the spindle is provided with a screw, and the crank is screwed onto the spindle, so that the runner is turned by the crank *i*.

k is a sleeve surrounding the spindle *h* and resting against the outer surface of the concave *e*. The sleeve *k* is provided with a short arm, *l*, in which a groove or other depression is formed to receive the end of the thumb-screw *m*, which is threaded in the crank *i*, so that the crank *i* and the sleeve *k* turn together with the runner *f*.

By adjusting the thumb-screw *m*, the distance between the runner and the concave can be regulated in front of the mill, and much more conveniently than when regulated in the rear, as was done in the older style of mills.

The runner, having two fixed bearings, will always maintain a uniform bearing of the face against the concave, and the coffee or other article ground will be more uniform.

n is a receptacle for holding the ground coffee or spices. It is provided on one side with the hooked lip *o*, which, entering a slot on the back plate, *a*, retains the receptacle and allows of its ready removal. Such a receptacle for the ground coffee is very desirable and prevents loss.

Having thus described my invention, I

claim as new and desire to secure by Letters Patent—

1. In a domestic grinding-mill, the combination, with a back plate adapted to be secured against the side of a wall, and having a step-bearing cast on its front side, of a removable concave, *e*, runner *f*, having the two grinding-surfaces *f'* and *g*, spindle *h*, formed integral with the concave, and adjusting mechanism located in front of the machine for regulating the relative positions of the runner and concave, substantially as set forth.

2. The combination, with the plate *a*, provided with a slot located below the discharge-opening of the mill, of a receptacle, *n*, having a hooked lip, *o*, formed on its rear edge, by means of which it is secured to the back plate and supported underneath the discharge-opening, substantially as set forth.

DEXTER W. PARKER.
FRANK H. CHAPMAN.

Witnesses:
JOSEPH A. MILLER,
J. A. MILLER, Jr.