

J. M. Smith,

Grater.

No. 104071.

Patented June 7, 1870.

Fig. 1.

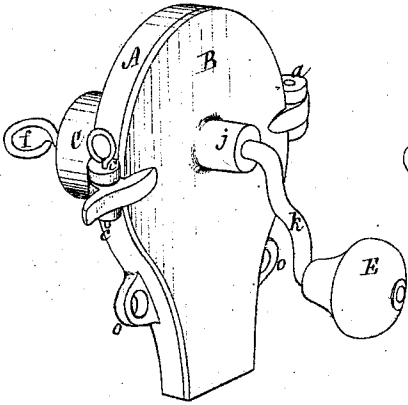


Fig. 2.

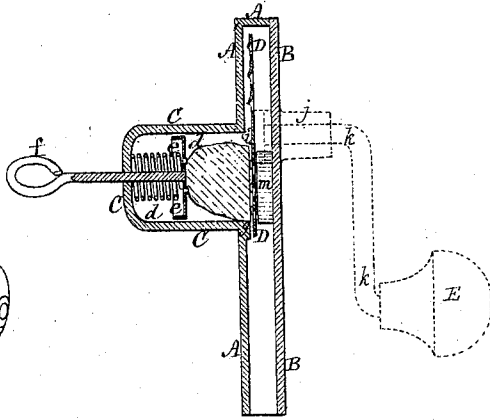
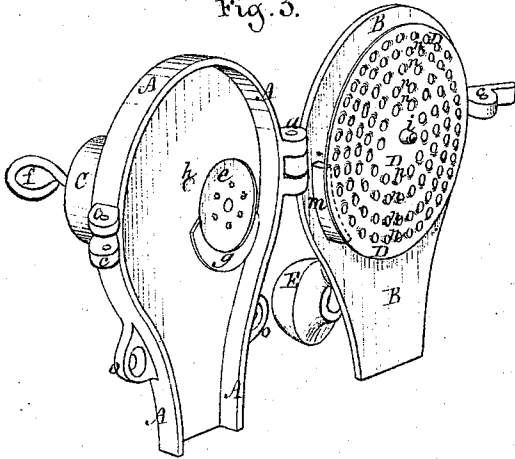


Fig. 3.



Witnesses
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JAMES M. SMITH, OF SEYMOUR, CONNECTICUT.

Letters Patent No. 104,071, dated June 7, 1870.

IMPROVED GRATER.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JAMES M. SMITH, of Seymour, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Graters; and I do hereby declare the following to be a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings making a part of this specification, in which—

Figure 1 represents an exterior view of the grater, as it appears when ready for use.

Figure 2 represents a vertical transverse section through the same.

Figure 3 represents the grater-case as swung open, to show the interior thereof.

Similar letters of reference, where they occur in the separate figures, denote like parts of the grater.

This invention relates the arrangement within a hinged case, that can be readily opened and closed, of a disk, furnished with rasping-teeth, burs, or fins, made in a spiral form, or punched in a spiral line, and guarded or protected to resist the force which it encounters when in use, easily cleansed or repaired, and of ready access, when placing in it a nutmeg or other similar article that is to be grated or reduced.

To enable others skilled in the art to make and use my invention, I will proceed to describe the same, with reference to the drawings.

A represents a cast-iron case, to which is hinged, as at *a*, a door or plate, B, which, when closed up against the case, may be fastened, as at *c*, to firmly unite the two parts.

On the case A is cast or wrought a projection, C, which forms an inclosed chamber, *d*, in which a nutmeg, or other similar article to be grated or abraded, is inserted from the interior of the case, and forced against the rasping-wheel D, connected to the cover B, by a spring follower, *e*, to which a rod, stem, or handle, *f*, is attached and extended through the projection, so as to pull back the spring-follower from the exterior of the case.

A slight projection, *g*, is made around the under portion of the chamber containing the nutmeg, and at and opposite the point where the rasping is done, to support the nutmeg against the action of the rasping-disk D.

A small depression, *h*, is also made in the case, to

receive and form a bearing for the spindle or journal *i* of the rasping-disk D, so that the latter may run true, and not be forced against the case, which would ruin its cutting or abrading edges.

To the cover or door B the rasping-disk D is hung, by a shaft, which, after passing through a bearing or stuffing-box, *j*, cast on said cover, is bent into a crank, as at *k*, and furnished with a knob or handle, E, by which the rasping-disk is turned from the exterior of the case.

Behind the disk D, and at or in line with the point or place where the rasping is done, there is cast a flange, *m*, which projects to, or nearly to the back of the disk, so that the least spring of the disk at its rasping-point would make it come against said supporting-flange, and it could go no further, and hence could not bend or throw the opposite portion against the case, which would, as before stated, take the rasping-edges off of the punched holes.

The holes *n* through the rasping-disk are punched in a spiral line from the centre to the circumference, and that portion of each hole that first touches the article to be grated or abraded, has upon it a fin or cutting-edge punched on it by a peculiar punching-tool.

The case is hinged, so that the nutmeg or other article to be grated may be conveniently placed in its chamber, but an important consideration in this hinging is, that it gives access to the rasping-disk, and allows it to be cleansed, as well as the whole interior of the case.

Lugs *o o* are cast on the case A, by which the grater may be fastened up against a wall, or otherwise, by screws passing through said lugs.

Having thus fully described my invention,

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

Arranging within a hinged case a chamber, for containing a nutmeg or other article to be abraded, and a rasping-disk, with the appliances for operating and controlling the disk and the article on which it acts, substantially as herein described and represented and for the purpose set forth.

JAMES M. SMITH.

Witnesses:

LOYD WEAVER,
JAMES W. SHAW.