

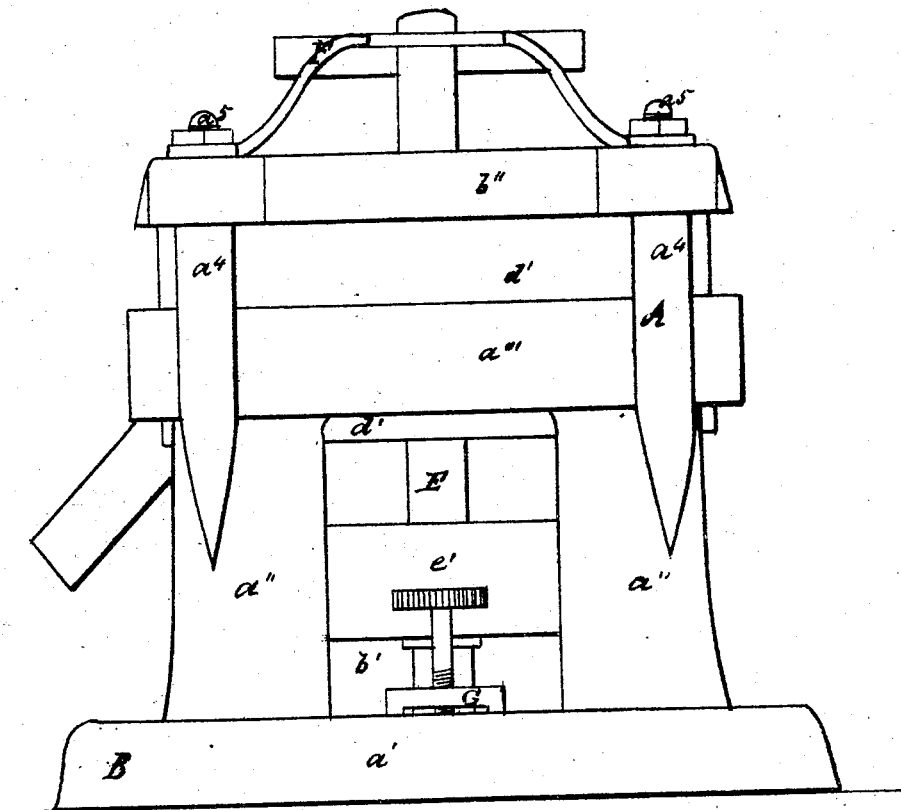
A. W. Straub

Grinding Mill

No. 74774

Patented Feb 25. 1868

Fig. 1.



Witnesses.

*Bent Morrison*  
*Wm. H. Morrison.*

Inventor:

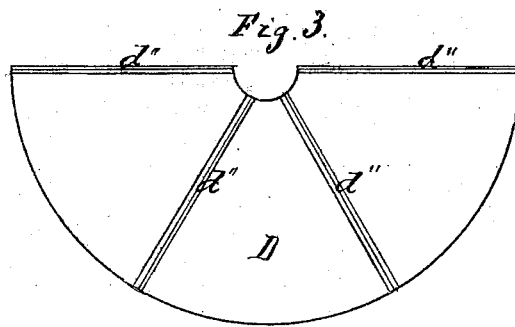
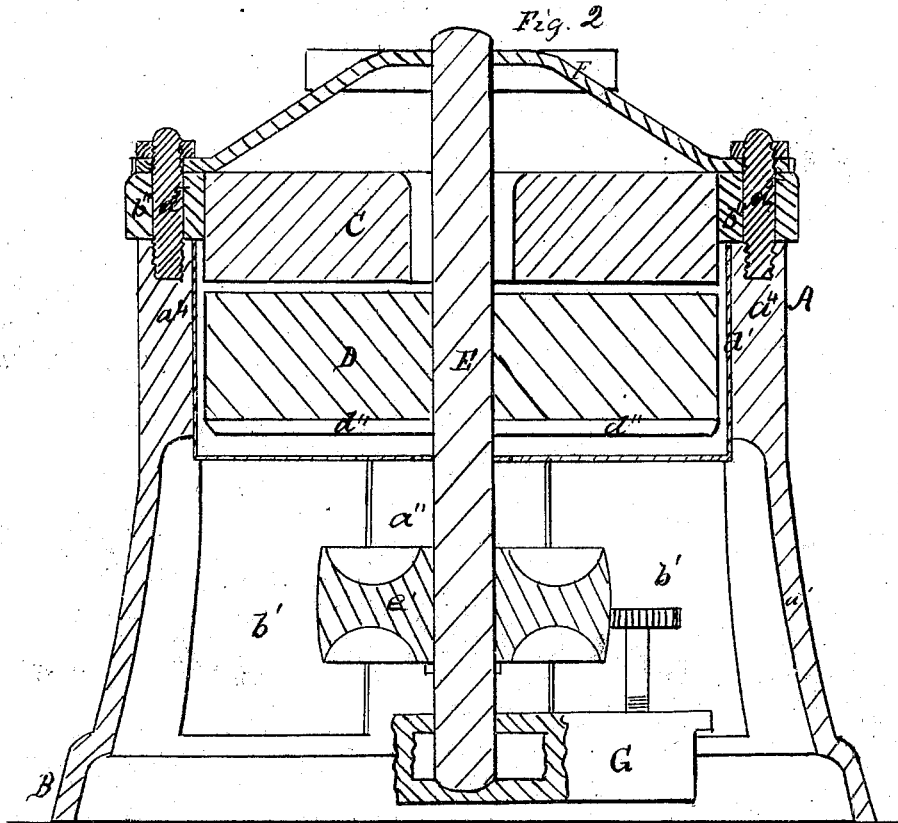
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A. W. Straub.

AMBROSE W. STRAUB, OF PHILADELPHIA, PENNSYLVANIA.

Letters Patent No. 74,774, dated February 25, 1868.

IMPROVEMENT IN PORTABLE GRINDING-MILLS.

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, AMBROSE W. STRAUB, of the city of Philadelphia, in the State of Pennsylvania, have invented a new and useful Improvement in the Portable Wheat-Flouring and Corn-Grinding Mill; and I do hereby declare that the following is 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 is a perspective view, and

Figure 2 a vertical section of the said improved mill;

Figure 3 being a sectional plane view of the under side of the lower or running stone, detached—

Like letters of reference indicating the same parts when in the different figures.

My improvement relates more especially to the portable wheat-flouring and corn-grinding mill of Mr. Isaac Straub, which is now used extensively in the western and southern States, the characteristic of which is, that the lower stone is the "runner," whilst the upper one is stationary; and the object of my improvement is to avoid the possibility of the mills getting out of "tram," from the terribly rough and careless handling to which they are subjected by steamboat and railroad transportation.

My invention consists in making the supporting-frame of the mill in a single piece of cast iron, substantially as hereinafter described and shown; and also in securing the detachable coping-ring, curb, and hopper-stool together, firmly down upon the said supporting-frame of the mill, by means of four nutted screw-bolts only, substantially as hereinafter described.

Referring to the drawings, A B is the supporting-frame of the mill, C the fixed or stationary stone, and D the running stone, fixed upon its supporting spindle E; *b''* the detachable coping-ring, *d'* the curb, F the hopper-stool, and *a<sup>5</sup> a<sup>5</sup> a<sup>5</sup> a<sup>5</sup>* the four nutted screw-bolts. The frame A B is a hollow circular case of iron, cast in one piece, and consisting of an annular base, *a'*, from which rise four upright portions, *a'' a''*, separated laterally by four large open spaces, *b' b'*, which afford free access to the interior, and of an annular curb-supporter and guard, *a'''*, with four vertically-projecting posts, *a<sup>4</sup> a<sup>4</sup>*, of equal height above the curb-supporter *a'''*. A "coping"-ring, *b''*, within which the upper stone, C, is fixed permanently, rests upon the four posts, *a<sup>4</sup>*, and is secured accurately and firmly thereon by means of a bolt, *a<sup>5</sup>*, which is screwed vertically into the upper end of each post, *a<sup>4</sup>*, so as to project upward far enough to pass through the respective lug of the coping-ring *b''*, and also through the foot of the hopper-stool and spindle-bearing F, to receive a screw-nut, whereby the parts *b''* and F are held down firmly upon the top of the frame A B, as shown in figs. 1 and 2. Within the curb-supporter *a'''*, a sheet-metal curb, *d'*, is fixed, the sides of which reach up to the tops of the posts *a<sup>4</sup>*, (see fig. 2), and within this curb the stone, D, rotates, without contact either with the curb or with the upper stone, its spindle, E, extending down through a roomy hole in the centre of the bottom of *d'*, and resting, in the usual bearing, in the adjustable supporting-beam G, below the driving-band pulley *e'*, which is fixed on the said spindle. The under side of the running stone D has six (more or less) fan-ribs, *d''*, fixed radially thereto, at equal distances apart, and so as to reach from the spindle E to the periphery of the stone, and be carried around by the latter, without contact with the curb *d'*.

It will be seen that, as the described different parts of the frame A B are cast together in one piece of iron, the said frame cannot be wrenched in any of its parts, in transportation, however roughly handled, and therefore the mill will retain the exact "tram" given to it at the manufactory—a matter of the highest importance, and never before secured; and besides, in replacing the stones C D, after separating them from the frame A B, for re-dressing at any time after using, there will not be any adjustment required to bring the faces of the stones exactly parallel to each other.

In the operation of the fan-ribs *d''*, during the rapid rotary motion of the running stone D, strong currents of fresh cool air will be steadily drawn by them through the hole in the bottom of the curb *d'*, distributed over the under side and around the periphery of the said stone, and discharged with the flour or meal at the outlet-spout, thus keeping the stone and flour cool—another result of great importance, and effected in the most simple manner.

Having thus fully described my improvement, what I claim as new therein of my invention, and desire to secure by Letters Patent, is confined to the following, viz:

I claim securing firmly down together upon the frame A B, cast in one piece, as shown and described, the detachable curb *d'*, coping-ring *b''*, and hopper-stool F, by means of four nutted screw-bolts, *a<sup>5</sup> a<sup>5</sup> a<sup>5</sup> a<sup>5</sup>*, substantially as and for the purpose herein described.

Witnesses:

BENJ. MORISON,  
WM. H. MORISON.

A. W. STRAUB.