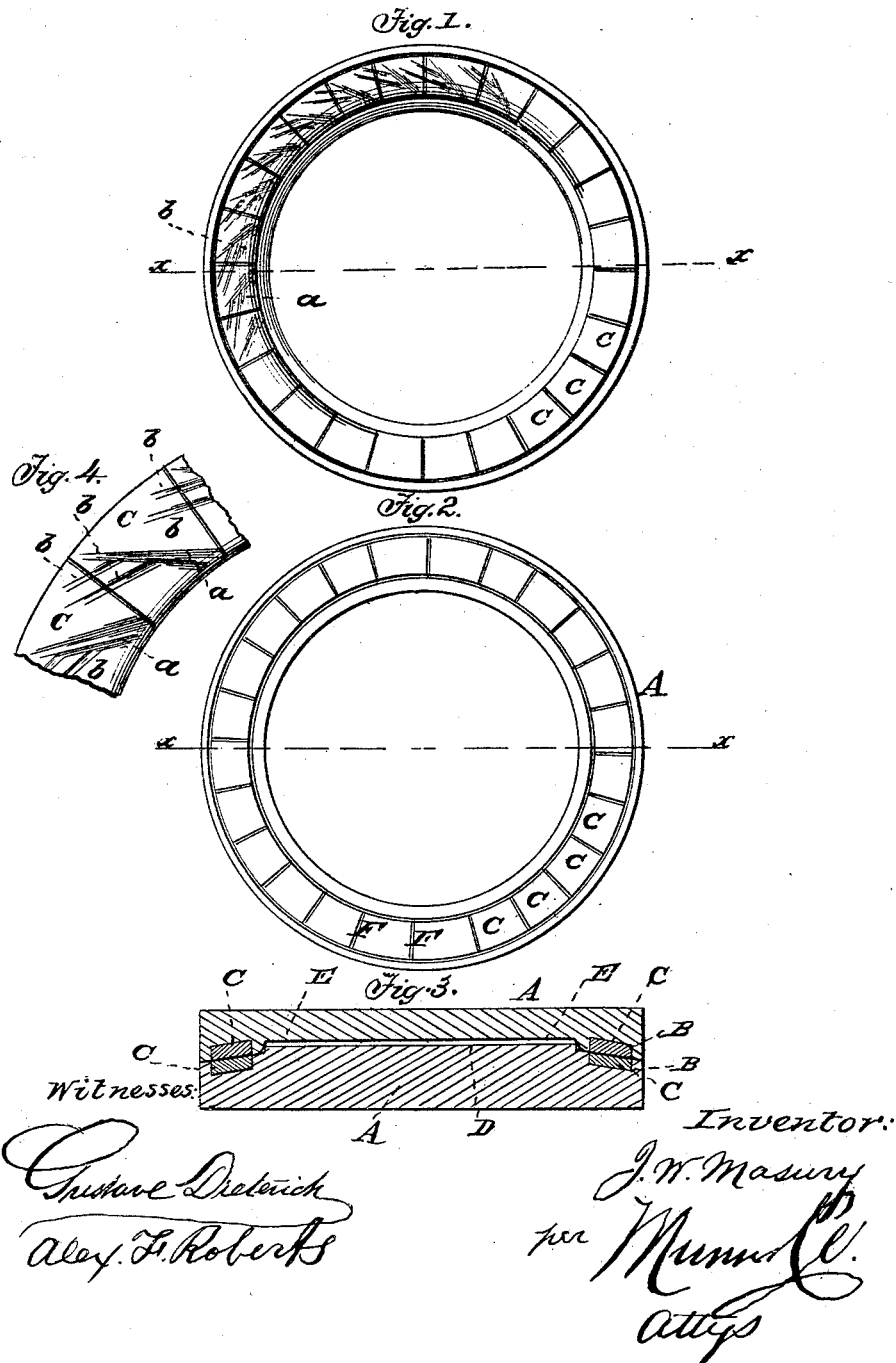


J. W. MASURY.

Millstone.

No. 111,956.

Patented Feb. 21, 1871.



United States Patent Office.

JOHN W. MASURY, OF BROOKLYN, NEW YORK.

Letters Patent No. 111,956, dated February 21, 1871.

IMPROVEMENT IN MILLSTONES.

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, JOHN W. MASURY, of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Millstones; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

This invention relates to improvements in the construction and dress of millstones for grinding paint and other wet substances, which improvements are also applicable to stones for grinding plaster, grain, or other substances.

The invention consists in constructing the stones of thin plates of cast metal and small thin sections of stone, either natural or artificial, vitrified or semi-vitrified, or other suitable material, attached to the iron plates in a way to be readily detached when worn out for the substitution of others, whereby I am enabled to make my improved stones thinner and lighter and more convenient to handle than the stones now used, which must be thick and heavy to provide the necessary grinding substance.

The invention also consists in arranging the dress for mills for grinding paint and other wet substances in one only of the stones, and arranging the furrows thereof to terminate at a short distance within the periphery of the stone so as to provide a narrow rim thereat of smooth surface; but in mills for grinding grain and other dry substances I propose to make the furrows in both stones.

Figure 1 is a face view of a stone constructed according to my improvements, and provided with the dress;

Figure 2 is a face view of the other stone, the surface of which is smooth;

Figure 3 is a transverse section, through both stones, on the lines *xx*; and

Figure 4 is a face view of some of the stone sections, such as I attach to the metal-plates.

Similar letters of reference indicate corresponding parts.

A represents the cast-metal plates, which may be of any required size or shape, and have annular grooves B in their faces near the periphery, in which I place thin slabs of stone, C, for the grinding-surfaces, the said slabs being so placed as to form continuous circular grinding-surfaces, and secured in any suitable way to admit of their removal when worn out for the substitution of others.

I prefer to make these grinding-surfaces much narrower than as now used, making a large plane surface, D, in the runner within the stone rim, and removing the corresponding part of the upper stones, as indicated by the dotted lines E, fig. 3. I also prefer to make the grinding-surfaces on a descending line from the inner toward the outer edge.

The lines F indicate the divisions between the sections of the grinding-surfaces.

Hitherto all paints, and other substances ground wet, have been ground by stones having furrows extending to the periphery, which throw out a great many particles not sufficiently ground, in consequence of which they have to be reground several times.

I therefore propose to provide one only of the stones of such mills with a dress, consisting of furrows *a*, beginning at the inner edge of the grinding-surfaces and extending to near the periphery, and branching furrows *b*, connecting the main furrows *a*, so as to leave a narrow rim of plane surface to act in conjunction with the plane-surface of the other stone thereat to finish the work and produce the requisite degree of fineness, which I find in practice to be a much better plan than the one now in use; the said furrows greatly increasing the grinding capacity, but not discharging any part without being finished, as is the case where the furrows extend to the periphery.

For grinding plaster, grain, or other dry substances not requiring to be made so fine, I propose to employ this arrangement of dress in both the stones. The branching furrows may or may not be used, as preferred.

The furrows are preferably made deeper and wider at the inner ends, narrowing and shallowing toward the periphery, so as to disappear at the required point.

Having thus described my invention,

I claim as new and desire to secure by Letters Patent—

The millstones, herein described, consisting of the metallic plates A A, having beveled recesses on their outer edge, and provided with the stone slabs *cc*, with or without the furrows *abb*, when these parts are constructed and arranged as shown, for the purpose specified.

The above specification of my invention signed by me this 10th day of January, 1870.

JOHN W. MASURY.

Witnesses:

GEO. W. MABEE,
ALEX. F. ROBERTS.