

# UNITED STATES PATENT OFFICE.

JOSIAH S. ELLIOTT, OF CHELSEA, AND JOHN F. WOOD, OF EVERETT, MASS.

## IMPROVEMENT IN THE MANUFACTURE OF MILLSTONES.

Specification forming part of Letters Patent No. 124,558, dated March 12, 1872.

### SPECIFICATION.

*To all whom it may concern:*

Be it known that we, JOSIAH S. ELLIOTT, of Chelsea, in the State of Massachusetts, and JOHN F. WOOD, of Everett, in said State, have invented an Improvement in Millstones; and we do hereby declare the following to be a full and correct description of the same.

To make our millstones, we first reduce to a coarse powder a stone of the requisite hardness and grit, preferably emery or burr stone. Following the instructions set forth in the several Letters Patent of the United States granted Stanislas Sorel for improvements in the manufacture of artificial stones and cements—viz., Letters Patent No. 53,092, dated March 6, 1866; Letters Patent No. 100,944, dated March 15, 1870; and Letters Patent No. 100,945, dated March 15, 1870—we use oxide of magnesium as a base and mix with it, in a dry state, a powder, of the kind described above, substantially in the manner indicated in the first of the above-named patents, and afterward moisten the mixture, as in said patent directed, with chloride of magnesium, or with any of the equivalents thereof, as set forth in the last of the above-named patents, substituting for the powder, however, to a great extent, chips and blocks of the natural stone; or, the oxide and chloride of zinc may be sub-

stituted for the oxide and chloride of magnesium; in which case we mix with the powdered stone and chips and blocks, in a dry state, from about ten to about twenty per cent. in weight of the oxide of zinc, and moisten the mixture with chloride of zinc until it will hold the shape given it by compressing in the hand. The moistened mixture is then molded to the required shape by direct pressure or tamping.

A millstone thus made will in a few days, without the application of heat, become as hard and serviceable as the best millstone made from natural burr-stone.

The chips and blocks of natural stone, used as above, add greatly to the strength of the millstone, and only so much of the powdered stone should be used as will fill up the spaces between the large pieces and give the requisite strength.

We claim—

As a new article of manufacture, a millstone made from hard and gritty stones, substantially as described.

The above specification of our said invention signed and witnessed at Boston this 2d day of February, A. D. 1871.

J. S. ELLIOTT.

JNO. F. WOOD.

Witnesses:

WILLIAM W. SWAN,  
H. FARNAM SMITH.