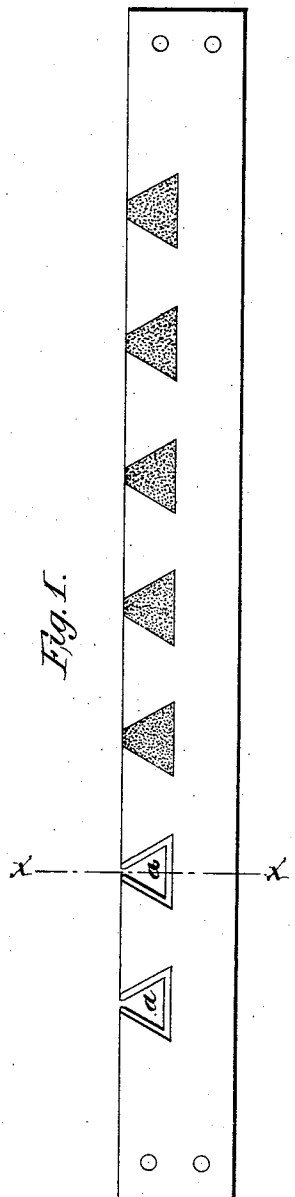


S. G. MORRISON.  
Saws for Sawing Stone.

No. 155,165.

Patented Sept. 22, 1874.



*Fig. 2.*



Witnesses;  
D. C. C. *[Signature]*  
E. M. Finch

Inventor  
*Samuel G. Morrison*

# UNITED STATES PATENT OFFICE.

SAMUEL G. MORRISON, OF WILLIAMSPORT, PENNSYLVANIA.

## IMPROVEMENT IN SAWS FOR SAWING STONE.

Specification forming part of Letters Patent No. **155,165**, dated September 22, 1874; application filed April 2, 1874.

*To all whom it may concern:*

Be it known that I, SAMUEL G. MORRISON, of the city of Williamsport, Lycoming county, State of Pennsylvania, have invented an Improvement in Saws for Sawing Stone, of which the following is a specification:

The object of my invention is to rapidly saw and divide into slabs and blocks marble, slate, and other rocks, for manufacturing and economical purposes, by the use of a saw in lineal or disk form, toothed with emery or other hard substance, pulverized, and mixed with alumina or other cementing matter, pressed and solidified into triangular spaces cut in the saw-blade, beveled on both sides like unto a knife-blade, for the purpose of securing the emery-teeth in place. These spaces, filled with emery, point down when the saw is in use, and resemble ordinary wood-saw teeth. As the emery-teeth wear, the particles are caught by the metal spaces between the teeth and carried back and forth, also cutting the stone.

My usual mode of making my stone-saw is as follows, to wit: I take a sheet of soft metal—iron, brass, or copper—of any desired length,

breadth, and thickness, and cut out at proper distances in triangular spaces, in form of the teeth of a crosscut wood-saw. Both sides of the edge of these triangular spaces are beveled at a sharp angle. Securing the saw-blade thus prepared on a smooth flat surface, I tamp into each space a stiff cement of emery, filling each space even with the surface of the saw-blade, then allow it to dry, and afterward bake or burn it.

The accompanying drawing shows a partly-toothed saw.

Figure 1—*a a* are spaces not filled. Fig. 2 is a cross-section of the saw-blade, showing the double bevel of the edge of the spaces for the teeth.

I claim as my invention—

A stone-saw, substantially as described, consisting of a metal blade, with the emery-teeth inserted therein.

SAMUEL G. MORRISON.

Witnesses:

E. C. WEAVER, J. P.,  
E. M. FINCH.