A. EAMES.

SAW FOR SAWING MARBLE.

No. 9,147. Patented July 27, 1852.

Fig: 3.

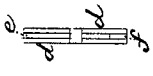


Fig: 1.

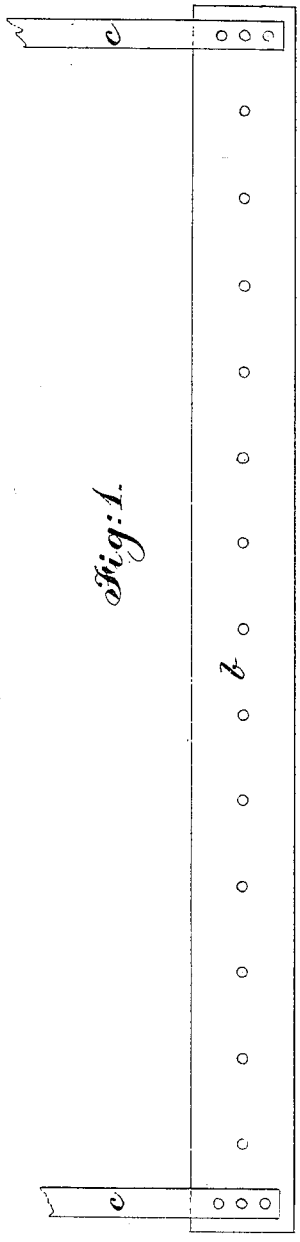
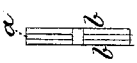


Fig: 2.



UNITED STATES PATENT OFFICE.

ALBERT EAMES, OF SPRINGFIELD, MASSACHUSETTS.

SAW FOR SAWING STONE.

Specification of Letters Patent No. 9,147, dated July 27, 1852.

To all whom it may concern:

Be it known that I, ALBERT EAMES, of Springfield, Massachusetts, have invented a certain new and useful Improvement in Saws for Sawing Marble, and that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1, is an elevation; Fig. 2, a cross section of a saw on my improved plan; and Fig. 3, a cross section of a modification.

The same letters indicate like parts in all the figures.

The usual and I believe the only mode heretofore practised of sawing stone is by means of a blade of steel or iron supplied during the operation with sharp sand and water. The working edge of such blades however soon become rounded and then the sand cannot remain in between the middle of the thickness of the blade and the stone, in consequence of which the operation of cutting becomes very slow.

With the view to remedy this difficulty the nature of my invention consists in making the blade with the middle part of its thickness of lead or other soft substance so that sand shall become embedded into it and remain there during the operation to act upon and break down or cut away the stone, while the sides or edges which are made of steel or iron or other hard metal will cut down and keep the kerf of the proper width and prevent the lead or other soft substance from spreading out or yielding.

Figs. 1, and 2, of the accompanying drawings represent a blade made on my improved plan in which *a*, represents the middle part of the thickness of the blade made of sheet lead and *b*, *b*, the sides thereof made of thin sheets of steel properly secured together by rivets passing through the three thicknesses. At the ends the two sheets of steel embrace and are properly secured to two plates of iron or steel *c*, *c*, which are to be properly formed and attached to the saw frame in the usual manner. Instead of securing the sides with the soft metal in the middle by means of rivets, any other practical mode of uniting them may be substituted, but the mode above described is the only one which I have practised.

Instead of the above mode I have contemplated constructing the blade as represented at Fig. 3, by securing thin strips of steel *d*, *d*, to the sides of a blade *e*, of the usual kind and having these to project some distance below the lower edge of the blade and then running in or otherwise inserting the lead or other soft substance *f*, into the space between them. If the inner surface of the thin strips of steel or iron be previously tinned the soft metal when run in will adhere thereto, but all modes of securing may be dispensed with as there is no danger of the soft metal dropping out when in use, and it can be wedged in sufficiently to prevent it from falling out when not cutting.

Although I prefer using lead for the middle or soft part and steel for the sides, yet, any soft substance which will hold the sand may be substituted for the one, and iron or other hard metal for the other.

What I claim as my invention and desire to secure by Letters Patent in the making of blades for cutting stones is—

The employment of lead or its equivalent between and in combination with the hard metal sides, substantially as specified.

ALBERT EAMES.

Witnesses:

CARSTEN BROWNE,

CHAS. N. BAMBURGH.