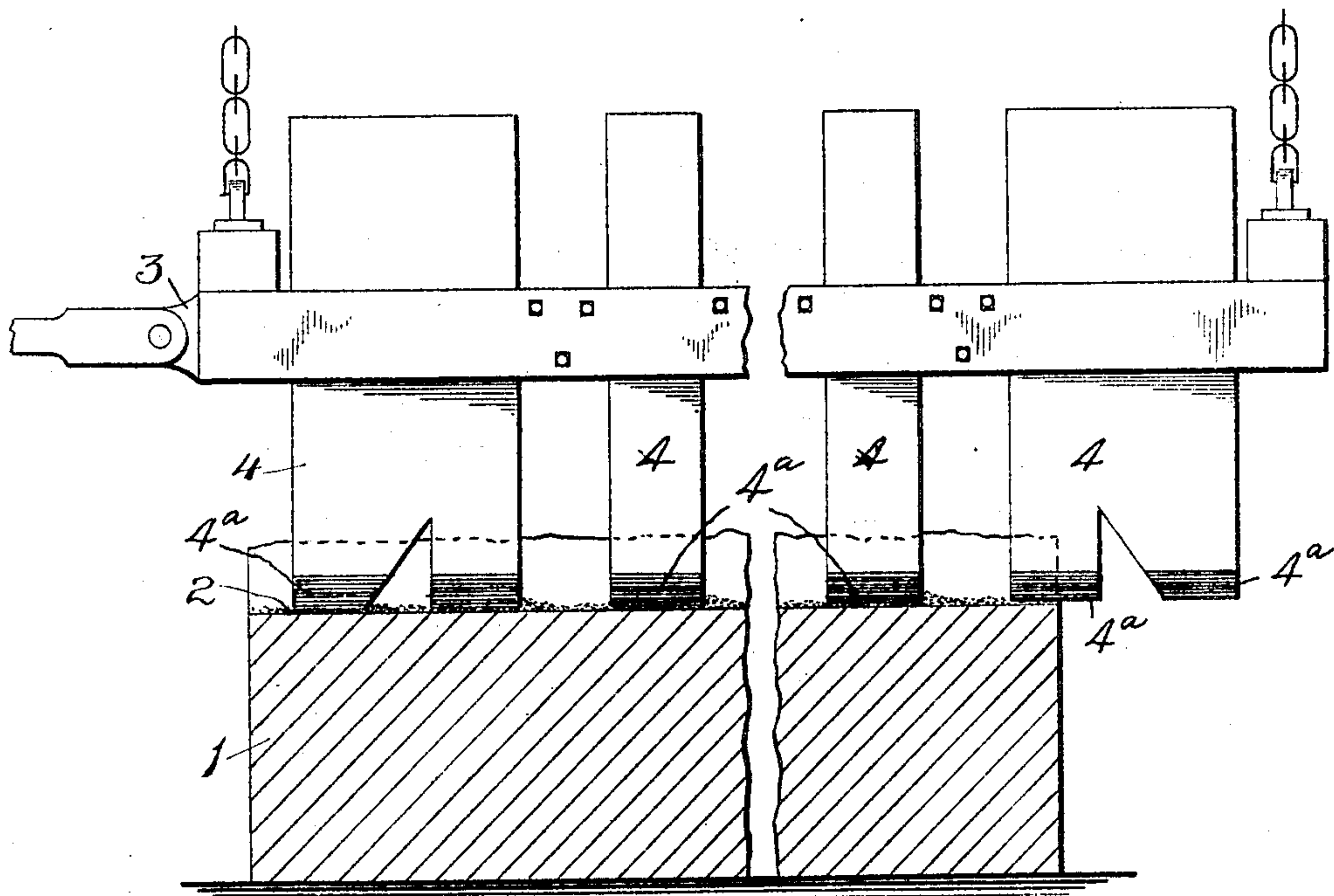


No. 804,246.

PATENTED NOV. 14, 1905.

C. L. MIEL.
STONE SAW BLADE.
APPLICATION FILED APR. 24, 1905.



Witnesses
Chas. W. Brady
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UNITED STATES PATENT OFFICE.

CHARLES L. MIEL, OF SACRAMENTO, CALIFORNIA, ASSIGNOR TO THE
UNITED STATES STONE SAW COMPANY, OF TUCSON, ARIZONA TERRITORY, A CORPORATION OF ARIZONA TERRITORY.

STONE-SAW BLADE.

No. 804,246.

Specification of Letters Patent.

Patented Nov. 14, 1905.

Application filed April 24, 1905. Serial No. 257,259.

To all whom it may concern:

Be it known that I, CHARLES L. MIEL, a citizen of the United States, residing at Sacramento, Sacramento county, California, have
5 invented certain new and useful Improvements in Stone-Saw Blades, of which the following is a full, clear, and exact description.

My invention relates to improvements in stone-saws, and particularly to blades there-
10 for. In constructions of this character a series of vertical blades are mounted in a longitudinal beam. Abrasive material, such as shot, &c., is spread upon the rock which it is desired to cut and the saw drawn back and
15 forth. Pressure being applied to the saw-beam, the abrasive material is forced against the rock by the blades and a cut thus produced. These blades are usually made of steel and hardened to give greater rigidity
20 and life.

My object is to increase the cutting capacity of the saw, while maintaining its rigidity and a sufficient degree of practical wearing qualities.

25 For this purpose I provide the saw-blades of steel which is hardened. The lower end or bearing end of the blade then has the temper drawn so as to present a somewhat softer edge for coaction with the abrasive material. This
30 serves to carry the abrasive material much more effectively, and thus produces a quicker and more accurate cut in the rock.

The drawing represents diagrammatically a saw-beam with blades operating to press the

abrasive material into a rock, a cut being partially formed.

1 represents the rock.

2 is the abrasive material.

3 is the saw-beam, adapted for longitudinal movement and provided with suitable means
40 for lifting the same.

4 is the "saw-blade," as it is termed, which applies the necessary bearing pressure to the abrasive material for the purpose of cutting. This blade is formed of suitable plate-steel of
45 dimensions to correspond with the character of the work which it is desired to perform. The blade is hardened and then has the temper drawn at the lower edge 4" to a sufficient extent to produce a softer bearing edge for
50 coaction with the abrasive material, but without materially affecting the rigidity and strength of the upper portion of the blade. While the softened edge serves to effect a
55 quicker cutting, the body of the blade is not weakened sufficiently to permit bending or buckling.

What I claim is—

In a stone-saw, a blade formed of hardened steel and having a straight bearing edge for
60 coaction with the abrasive material, the temper of the steel being drawn adjacent to said edge and producing a softer bearing-surface, for the purpose specified.

CHARLES L. MIEL.

Witnesses:

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ROBT. S. ALLYN.