

No. 621,225.

Patented Mar. 14, 1899.

H. L. CHANDLER.
SAW BLADE FOR STONE SAWING MACHINES.

(Application filed Dec. 29, 1898.)

(No Model.)

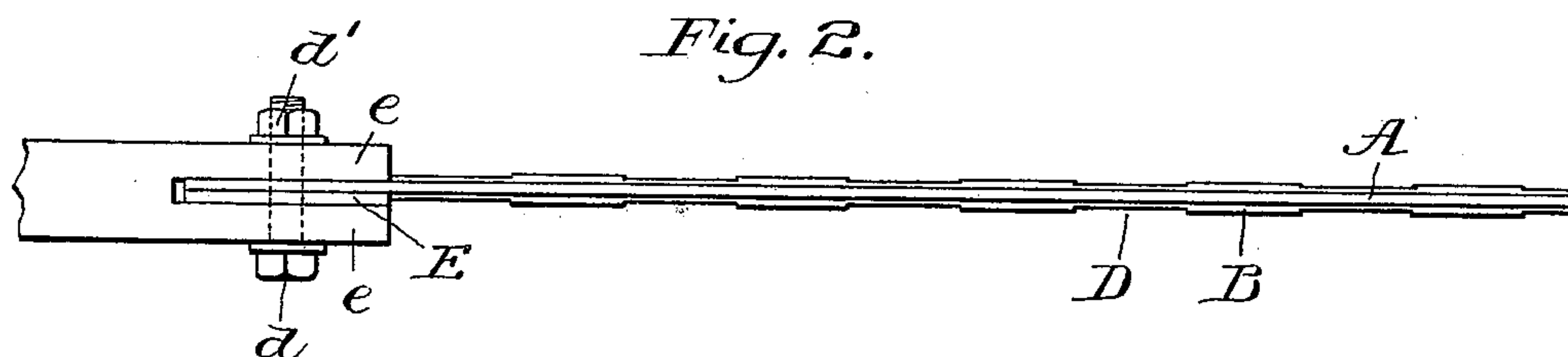
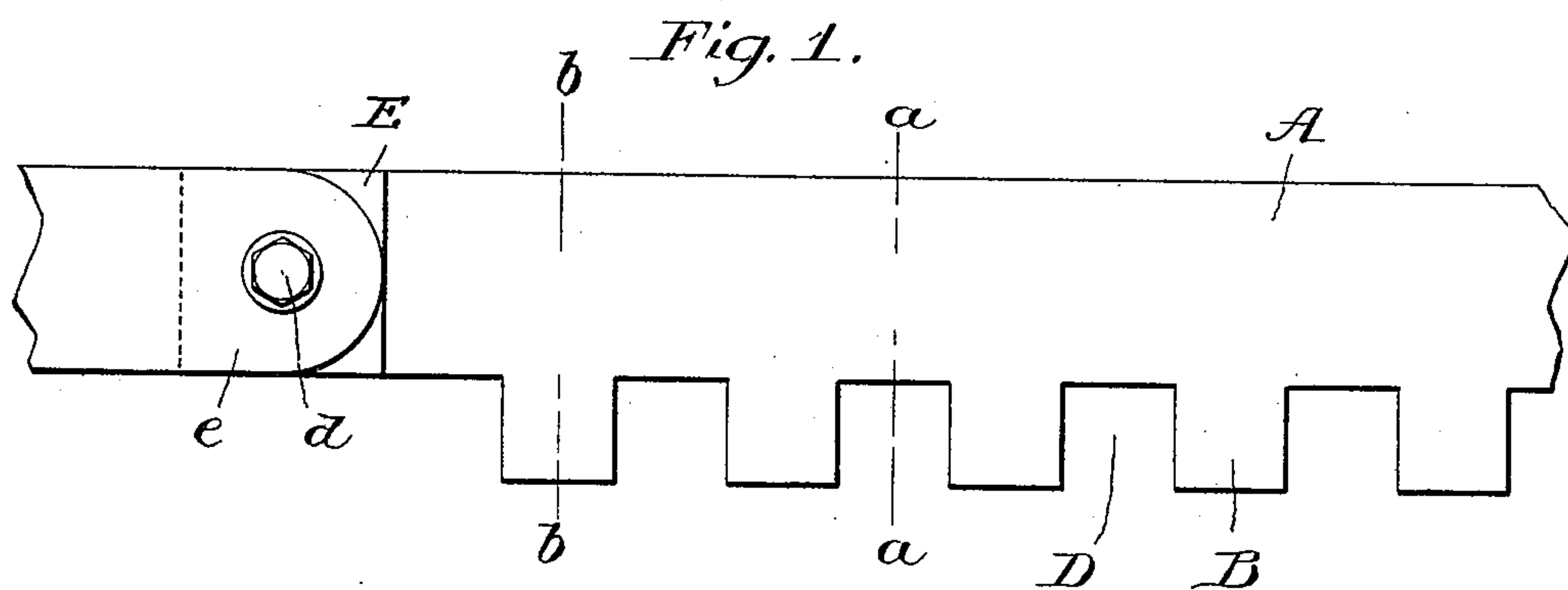


Fig. 3.

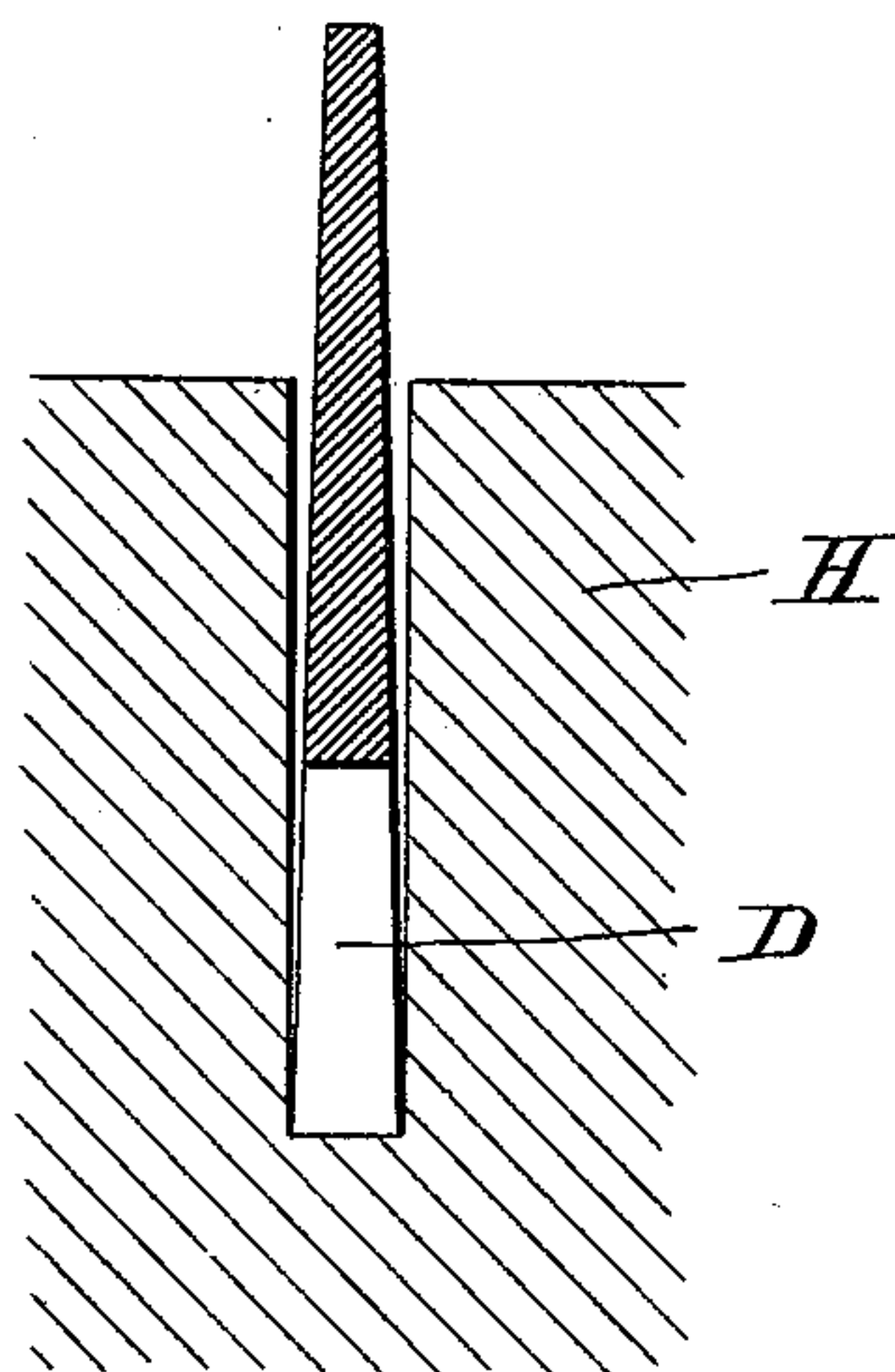
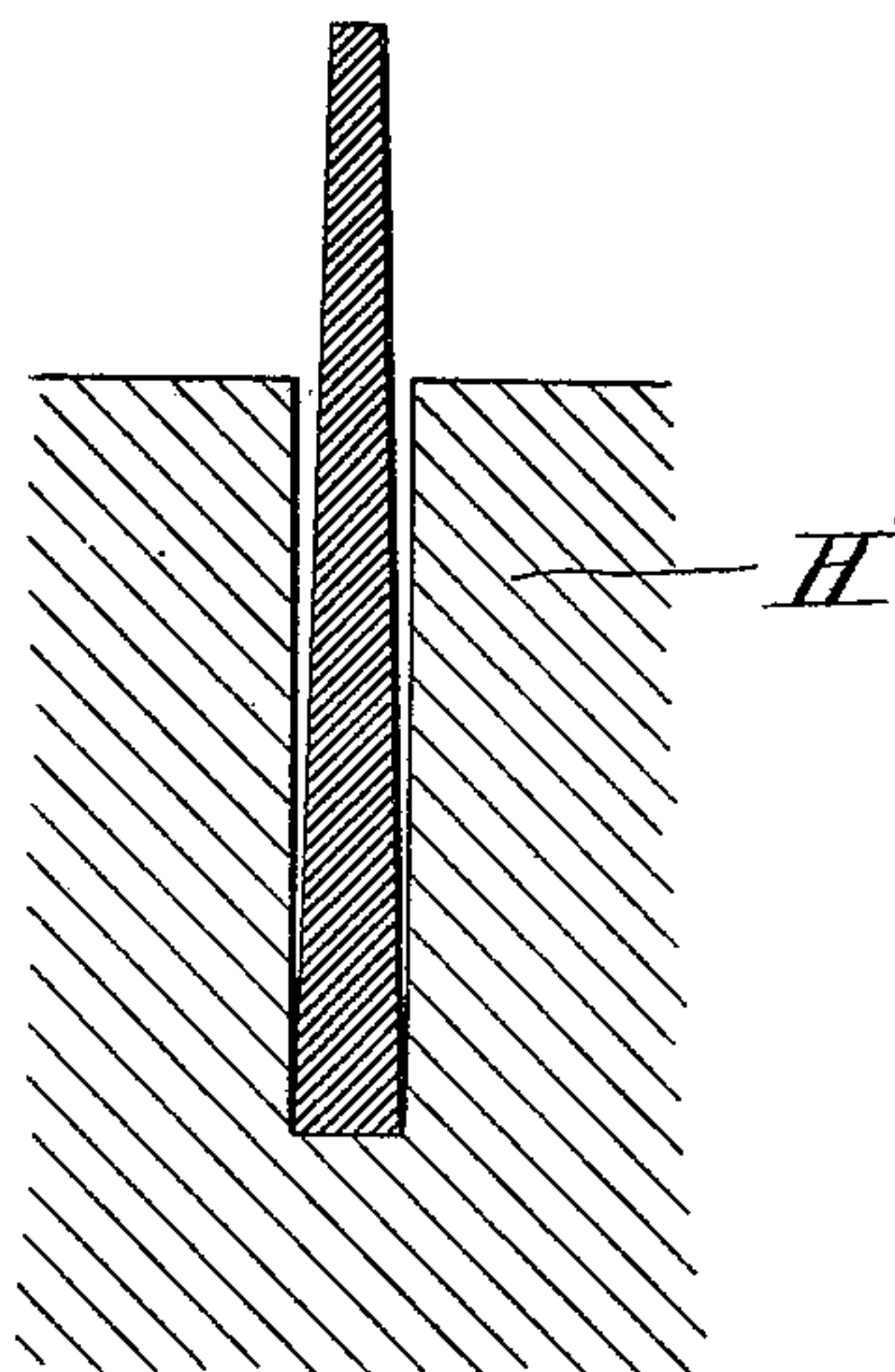


Fig. 4.



WITNESSES:

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SAW-BLADE FOR STONE-SAWING MACHINES.

SPECIFICATION forming part of Letters Patent No. 621,225, dated March 14, 1899.

Application filed December 29, 1898. Serial No. 700,586. (No model.)

To all whom it may concern:

Be it known that I, HOWARD L. CHANDLER, a citizen of the United States, residing in the city of Philadelphia, State of Pennsylvania, have invented certain new and useful Improvements in Saw-Blades for Stone-Sawing Machines, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to saw-blades for use in stone-sawing machines for sawing blocks of stone; and it consists of an improved saw-blade adapted especially for use in that class of stone-sawing machines in which the saw-blade is reciprocated horizontally.

In the accompanying drawings, illustrating my invention, Figure 1 is a side elevation of my improved saw-blade mounted in the lips of the saw-dog. Fig. 2 is a plan view thereof. Fig. 3 is a section through the line *a a* of Fig. 1, and Fig. 4 is a section through the line *b b* of Fig. 1.

My improved saw-blade, the body of which is indicated at A, Fig. 1, is wedge-shaped, the taper beginning at a point somewhat below the top of the openings forming the teeth, and the teeth, which are indicated at B, Figs. 1, 3, and 4, are formed on the thickened edge of the blade, which is thus the cutting edge, and are made square on the cutting-face. The teeth are formed by notching this thick edge of the blade by cutting interstices in it at intervals, which, as shown in the drawings at D, are square interstices, but, if preferred, may be round at the top, these interstices or notch-openings being formed by cutting out the metal by a die-punch, the blade itself being made, preferably, of rolled steel. These blades vary in length in practice from about twelve feet to twenty feet. Their vertical height or depth is usually about nine and three-fourths inches, in which case the thickness of the blade at the bottom or cutting edge is six-sixteenths of an inch and the top or thin edge is three-sixteenths of an inch. Based upon these proportions the depth of interstices forming the teeth is made to extend to a point slightly beyond the appreci-

able taper, generally two and three-fourths to three inches in height or depth. The object of this last-named proportioning of the parts is to allow the abrading material, for which purpose shot is usually used, to pass down and enter the interstices D between the teeth.

A common defect in saw-blades has been that they are liable to break easily where the pin-hole is punched through them at the two ends to fasten the blade to the saw-dogs, and to obviate this difficulty I provide a reinforcing-plate (indicated at E, Figs. 1 and 2) riveted on one side of the saw-blade and each end thereof, covering the pin-hole, said hole extending through the reinforcing-plate. The blade is to be mounted in the saw-dog between the lips *e e* thereof (see Fig. 2) and is removably fastened therein, as usual, by the headed pin *d*, adapted to be tightened up and held in place by any usual means, such as screw-nut *d'*.

In my stone-saw blade as thus constructed the teeth are integral with the blade-body and not set in, as frequently done. The blade, owing to its reinforcing-plate, is much more durable, and by reason of its upward taper toward its top edge it is economical in construction and enables the abrading material to be delivered freely at all times to the interstices between the teeth, and hence to the constant-cutting surface.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A saw-blade for stone-sawing machines, consisting of a wedge-shaped blade the thicker edge of which is punched out at uniform intervals to form square-faced teeth, said teeth being of a depth sufficient to include an appreciable part of the taper formed by the wedge shape of the blade; substantially as described.

2. A saw-blade for stone-sawing machines consisting of a wedge-shaped blade the thicker edge of which is punched out at uniform intervals to form square-faced teeth of a depth sufficient to include an appreciable part of the taper formed by the wedge shape of the

blade, and provided at each end with a reinforcing-plate riveted or otherwise secured thereto; substantially as described.

3. A saw-blade for stone-sawing machines,
5 consisting of a wedge-shaped blade the thicker
edge of which is punched out at uniform intervals to form square-faced teeth, of a depth
sufficient to include an appreciable part of
the taper formed by the wedge shape of the
10 blade, and provided at each end with a reinforcing-plate riveted or otherwise secured
thereto, the reinforcing-plate and blade be-

ing recessed to adapt it to receive a locking-pin operating to secure the blade within the lips of the saw-dog; substantially as de- 15 scribed.

In testimony whereof I have hereunto affixed my signature this 24th day of December, A. D. 1898.

HOWARD L. CHANDLER.

Witnesses:

WALTER C. PUSEY,
H. T. FENTON.