

T. J. WILLIAMSON.
Drill-Sharpener.

No. 219,133.

Patented Sept. 2, 1879

Fig. 1.

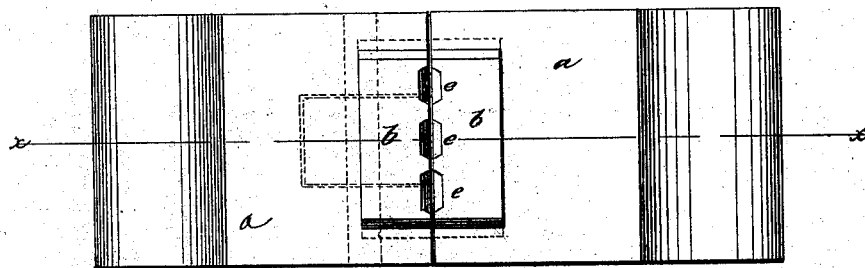


Fig. 2.

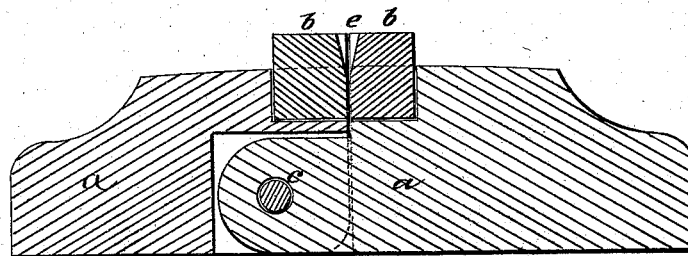
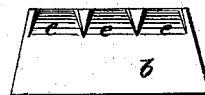


Fig. 3.



WITNESSES:

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THOMAS J. WILLIAMSON, OF CARSON CITY, NEVADA.

IMPROVEMENT IN DRILL-SHARPENERS.

Specification forming part of Letters Patent No. **219,133**, dated September 2, 1879; application filed December 31, 1878.

To all whom it may concern:

Be it known that I, THOMAS J. WILLIAMSON, of Carson City, in the county of Ormsby and State of Nevada, have invented a new and useful Improvement in Drill-Sharpener, of which the following is a specification.

The object of my invention is to furnish a simple and efficient instrument for sharpening well-drills and cold-chisels.

I will first describe the invention in connection with the drawings.

Figure 1 is a plan view of my improved sharpening-instrument. Fig. 2 is a sectional elevation on line *x x*. Fig. 3 is a side view of one die.

Similar letters of reference indicate corresponding parts.

The blocks *a*, that carry the dies *b b*, are made of iron, and hinged together by a pin, *c*, so as to divide transversely on the line between dies *b*, to permit insertion or removal of the drill. The steel dies *b* are held in a dovetail mortise in the upper side of blocks *a*, so that each is held securely. The adjacent faces of the dies are formed with recesses of a shape corresponding to the drill-points, as at *e*. There are three of the recesses in the dies *b*, adapted for drills of differing sizes, so that either one of the recesses or openings may be used, according to the size of drill that is to be sharpened.

The instrument is to be used in the following-described manner: The drill to be sharpened is first heated, and then the end or point

placed between the dies *b* in the recess *e*, that corresponds to the diameter of the drill, and the blocks and dies closed upon the drill-point; then, by striking a few blows with a hammer on the drill-head, the point is spread and caused to take the shape of the recess and the edge sharpened. The drill is thereby brought to the uniform size, and the angles that may be broken filled out. The drill is then removed by opening the block and dies, and hardened by plunging it in water.

This device is simple, and requires no special skill for its use. It is adapted for use at the place where a well is being drilled or holes drilled for blasting, and by the men using the tools. By its use the drills, and consequently the drilled hole, can be kept of uniform size. Miners generally use three sizes of drills, and I therefore construct the instrument so that it is adapted for the three sizes used.

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

The dies *b b*, formed with recesses *e*, in combination with the blocks *a*, hinged together on the line between the dies, substantially as described and shown, the whole forming an instrument adapted for use in sharpening drilling-tools, as specified.

THOMAS JAMES WILLIAMSON.

Witnesses:

JAMES E. DEALY,
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