A. R. Stewart,

Sharpening Saws.

No. 84,229. Patented Nov. 17, 1868.

Fig. 1

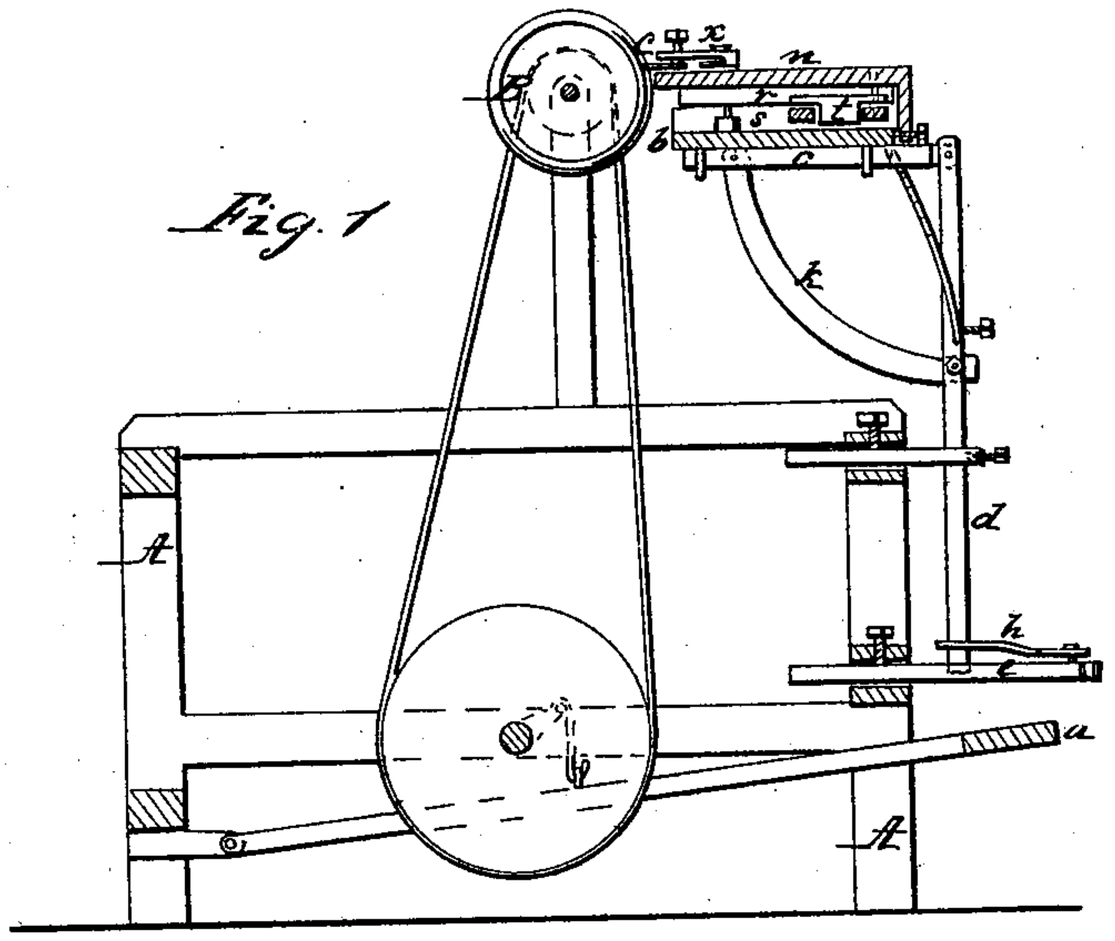


Fig. 2.

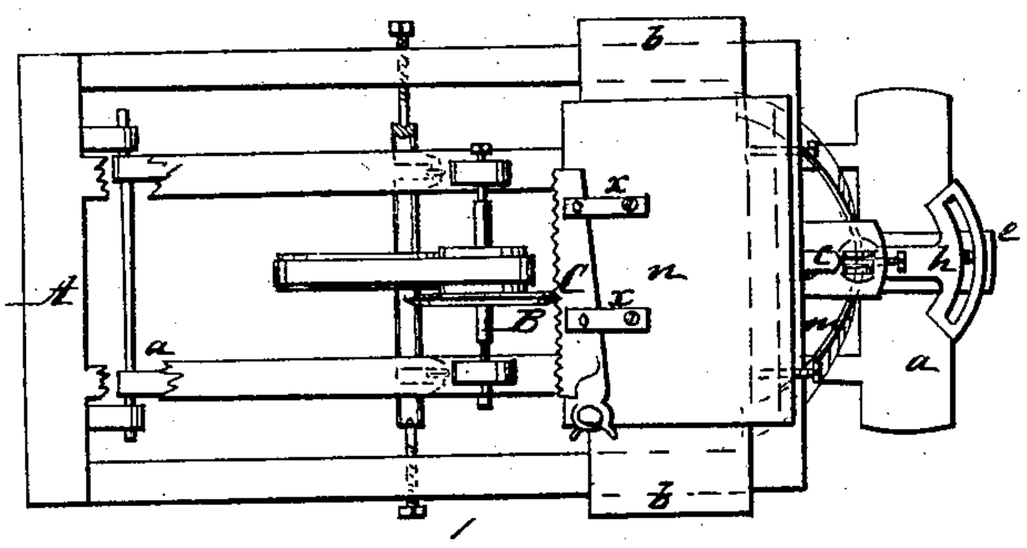


Fig. 3.

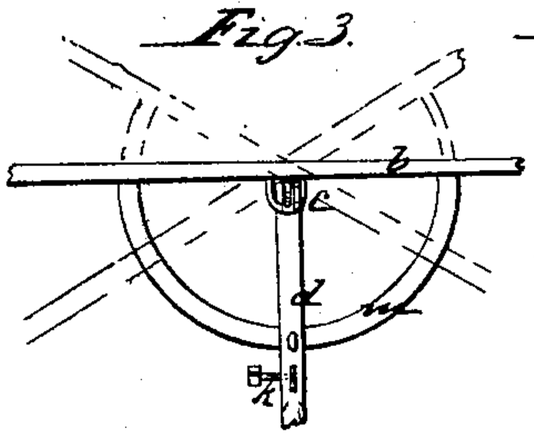


Fig. 4.

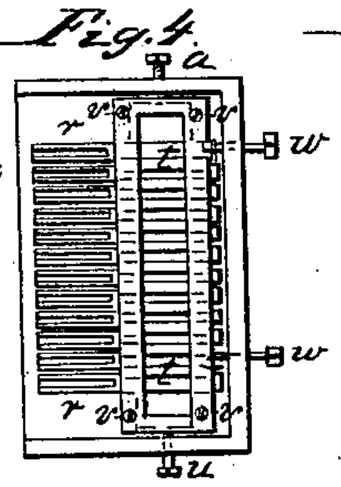
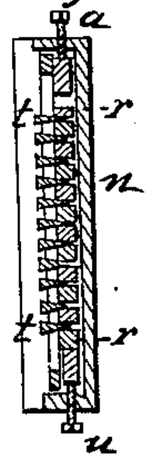


Fig. 5



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A. R. STEWART, OF DOUGLAS HARBOR, NEW BRUNSWICK.

Letters Patent No. 84,229, *dated November* 17, 1868.

IMPROVEMENT IN MACHINE FOR SHARPENING SAWS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, A. R. STEWART, of Douglas Harbor, in the county of Queens, and Province of New Brunswick, have invented a new and useful Improvement in Machine for Sharpening Hand-Saws; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side sectional elevation of the machine, to which my invention may be attached.

Figure 2 is a top view of the same.

Figure 3 is a detached view of the movable table.

Figure 4 is an under-side view of the table, showing the guides.

Figure 5 is a cross-section of the table and guides.

Similar letters of reference indicate corresponding parts.

This invention relates to an improvement in the construction of a machine for sharpening hand-saws with grindstones or emery-wheels, and consists in a small grindstone, cut to a bevel edge, and hung in a proper frame, on which is supported, in front of the grindstone, a table which holds the saw to be sharpened, and is adjustable, so as to set the teeth in the right position for grinding on their opposite sides, at the desired angle of inclination; and, further, in a guide-rest, so arranged and adapted as to keep the teeth true when they are ground, and to regulate the operation exactly, as hereinafter more particularly described.

A is a frame, on which the grindstone B is hung, to be turned by a treadle, *a*, or in any suitable manner.

In front of the grindstone is a long flat board or table, *b*, that is secured on an arm, *c*, pivoted to the upper end of the post *d*, which is stepped at the foot in a projection, *e*, to which it is held by a slotted segment, *h*, that allows it to turn partly round only, so as to shift the angle of the front side of the table with relation to the saw.

The table *b* is also made adjustable in its position, with the front side more or less elevated in front of the saw, by means of a quadrant-slide, *k*, one end of which is fastened to the pivoted supporting-arm *c*, and the other end passes through the post *d*, to which it is secured in any position required by a set-screw.

The table *b* is also capable of adjustment, with either end elevated or depressed, by means of a sector-slide, *m*, which also passes through the post *d*, and is fastened at any desired point, to adjust the table *b* with the saw, by a set-screw, as shown in fig. 3.

A saw-rest or short board, *n*, holds the hand-saw C, by means of clamps and set-screw, as shown in fig. 2, and the rest *n* lies on the table *b*, to be shifted to the right or left, by hand, in front of the grindstone, for grinding the teeth.

On the under side of the saw-rest *n* is a set of guides, *r r*, figs. 4 and 5, made to correspond with the saw-teeth, in pairs, and to regulate their advance, when grinding, by moving up to the grindstone on a pin in a stud, *s*, on the front part of the table *b*, directly opposite the grindstone B.

These guides are made separate from each other, so that they may be spread apart evenly by means of a set of wedges, *t t*, bearing between them, as required to suit saw-teeth of different sizes, which wedges are pressed in by set-screws *v v*, at opposite ends of the saw-rest *n*, into which they screw, pressing the guides firmly against the wedges.

The saw-rest *n* is also adjusted to grind the teeth to the right depth, by two set-screws, *w w*, which pass through the back part, and bear against the back edge of the table *b*, as seen in fig. 1.

The hand-saw C, fig. 2, is held in place on the saw-rest *n*, by clamps *x x*, with set-screws.

The saw is sharpened by bringing the teeth up against the bevel edge of the grindstone, at the proper angle for the sides of the teeth, which are ground alternately on both sides, the saw being reversed after one side is finished.

Having described my invention,

I claim as new, and desire to secure by Letters Patent—

1. The combination and arrangement of the table *b*, adjustable saw-rest *n*, pivoted arm *c*, vertical shaft *d*, slotted segment *h*, segment *k*, and sector-slide *m*, all constructed and operating as herein described, for the purpose specified.

2. The adjustable guides *r r*, and the wedges *t t*, connected with the saw-rest *n*, combined with the stud *s*, on the table *b*, constructed, arranged, and operating as described.

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Witnesses:

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