A. Dawes,

Hand Saw.

No. 48,376. Patented June 27, 1865.

Fig. 1

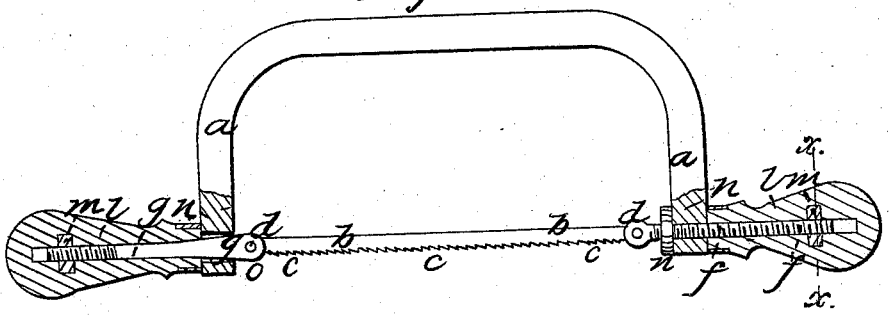
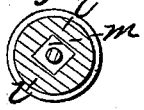


Fig. 2



Witnesses

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UNITED STATES PATENT OFFICE.

ALFRED DAWES, OF WALTHAM, MASSACHUSETTS.

IMPROVEMENT IN SAWS.

Specification forming part of Letters Patent No. **48,376**, dated June 27, 1865.

To all whom it may concern:

Be it known that I, A. DAWES, of Waltham, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in 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.

The present invention relates to a new and peculiar manner of hanging a saw-blade to be used for cutting steel, iron, brass, &c., to and within its frame; and it consists in attaching the blade at each end to and upon a screw shaft or rod passing through the frame, on each of which is a handle having a fixed screw-nut, through which the said rods pass.

On one of the shafts, and bearing against the inner face of the frame, is a thumb-nut, while the other is made of a tapering shape from its end to which the blade is hung to the handle, so that as it becomes loose in its bearings from wear it can be easily tightened. By turning the thumb-nut to the right or left the saw-blade can be loosened or tightened at pleasure in its frame, and by means of the two handles it can be turned to any position or direction desired.

In accompanying plate of drawings my improvement is represented, Figure 1 being a partial central vertical section through the saw-blade and its frame in the direction of their length; Fig. 2, a cross-section through handle in plane of line *x x*, Fig. 1.

a a in the drawings represent the frame of the saw, made of any desired shape and material; *b b*, saw-blade having teeth *c c* along one of its edges, made of steel or other suitable material, and hung or attached by pivots *d d* at each end to and upon one end of shafts or rods *f g*, having screw-threads upon and around the same, which rods pass loosely through proper-shaped apertures in each end *h* of the frame, and into the handles *l l* through a screw-nut, *m*, inserted in the same, as seen in Fig. 1.

On the screw-shaft *f* is a thumb-nut, *n*, bearing against the inner face of the saw-frame, by turning which to the right or left the saw-blade can be either tightened or loosened in its frame at pleasure, as is evident without further description. The screw-shaft *g*, or that part of it which bears in the frame *a*, is made of a tapering shape from its end *o*, to which the blade is attached, toward the handle *l*, so that as it becomes loose in its bearings it can be easily and readily tightened at pleasure by simply screwing it sufficiently into the nut of its handle therefor.

By turning the handles hung by their screw-rods to and within the saw-frame, as described, it is apparent that the saw-blade can be turned to any position or direction, thus enabling a piece of metal or other material to be cut in any form desired.

Although I have described my improvement as particularly applicable to a saw to be used for cutting metals, it is evident that it may be readily adapted to a saw used for cutting wood, &c., and therefore I do not intend to limit myself to its application to saws for metals alone.

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

Attaching a saw-blade to and within its frame by means of the screw-shafts *f* and *g*, handles *l l*, and thumb-nut *n*, or their equivalents, arranged and operating together substantially as herein described, and for the purposes specified.

ALFRED DAWES.

Witnesses:

EDWIN A. JOHNSON,

GEO. H. SHIRLEY.