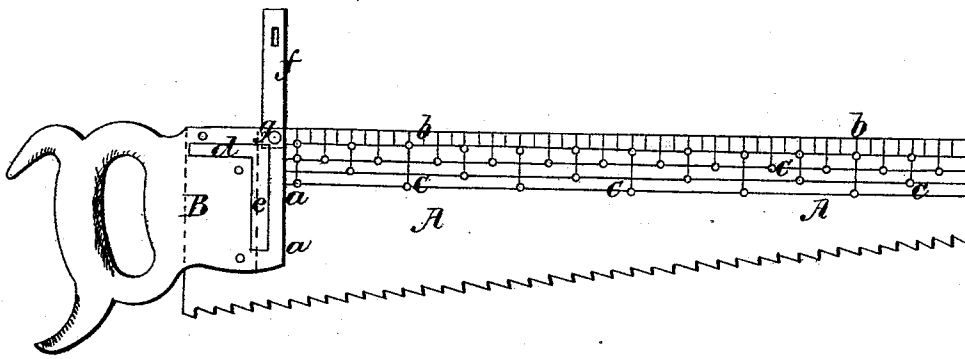


H. Cramer,

Saw.

No. 25,884.

Patented Oct. 19 1869.



Witnesses;

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HERRMANN CRAMER, OF SONORA, CALIFORNIA.

Letters Patent No. 95,884, dated October 19, 1869.

IMPROVEMENT IN 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, HERRMANN CRAMER, of Sonora, in the county of Tuolumne, and State of California, have invented a new and improved Saw; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which the drawing represents a side view of my improved saw.

This invention relates to a new manner of constructing the blade and handle of a hand-saw, so that the same may be employed as a square, bevel, gauge, compass, and measure, as well as for sawing-purposes, and also as a spirit-level and plumb.

The invention consists, first, in perforating the saw-blade at several points, so that by placing an awl, or similar instrument, through one hole, and a pencil or marker through the other, it may be used as a compass, and also for a gauge.

The invention also consists in the application of spirit-levels to the handle, whereby the implement can be used as a level and plumb.

The invention consists, further, in the application to the saw of a pivoted plate or bar, by means of which any desired angle can be formed on the back edge of the saw, to serve for measuring and laying out bevels, and for other purposes.

The invention, finally, consists in the general combination of the aforementioned additions and improvements with a saw-blade, whose back edge is provided with a graduated scale for measuring-purposes, so that thereby a universal tool is provided.

A, in the drawing, represents the blade of a hand-saw, of suitable form. B is its handle.

The inner edge *a* of this handle is made at right angles with the back edge *b* of the saw, so that the device may be used as a square.

A graduated scale is formed on the back edge of the saw-blade, to allow the use of the same as a rule.

Apertures *c c* are formed through the saw-blade at certain suitable distances from each, preferably on certain lines of the scale, as shown. When a pointed tool is put through one of these apertures, and a marking-tool through another, the device may be used to describe circles of suitable diameter.

Spirit-levels *d* and *e* are set into the saw-handle, one parallel with and the other at right angles to the back edge of the saw. The same may thus be used as a level and plumb.

f is a plate or bar, pivoted by a pin, *g*, to the saw, near the back edge of the same. This plate or bar may be set at any angle to the back edge *b*, and can be locked in the desired position by a suitable device, preferably by screwing down the pivot.

Having thus described my invention,

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

A saw, whose back edge is provided with a graduated scale, and whose blade is perforated, in combination with the square-edged handle B, spirit-levels *d e*, and pivoted bar or plate *f*, all arranged and operating substantially as herein shown and described.

Witnesses:

HERRMANN CRAMER.

JOHN YORK, Jr.,
J. F. ROONEY.