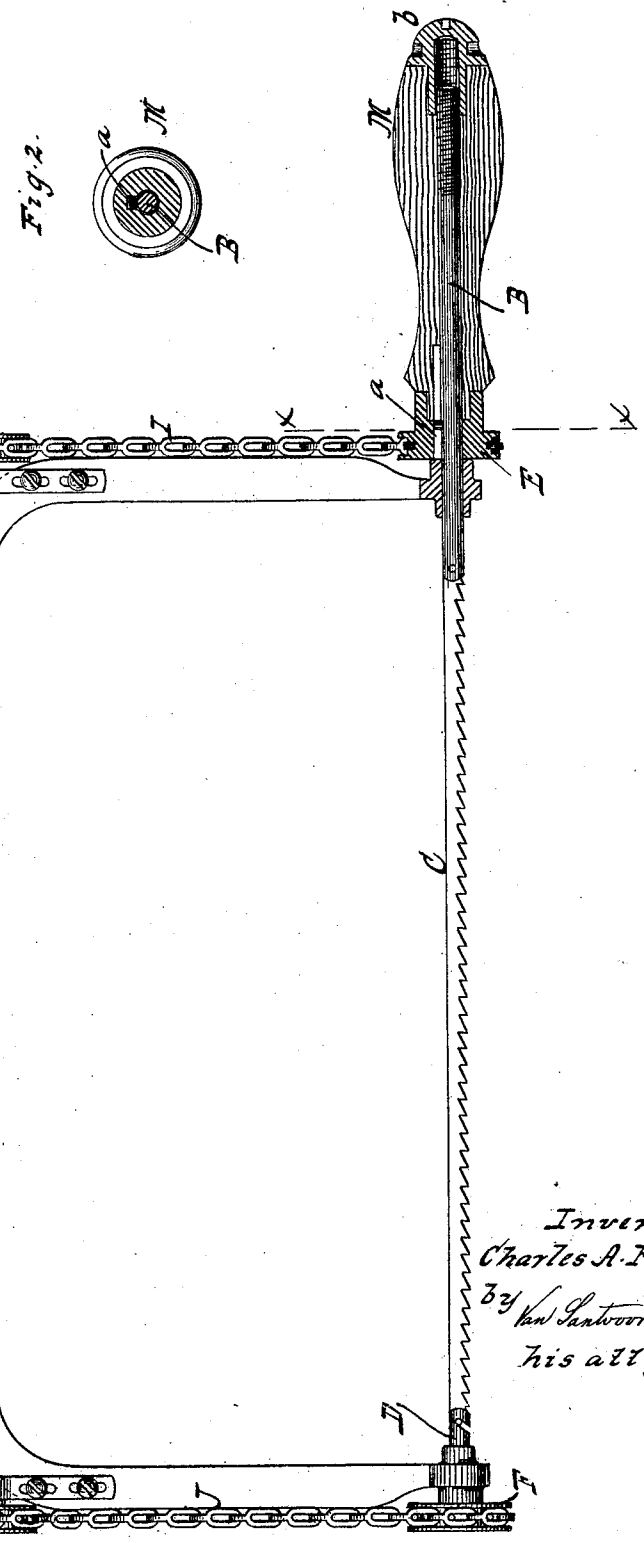
(No Model.)

C. A. FENNER.

HANDSAW.

No. 297,366. Patented Apr. 22, 1884.



Witnesses
William Miller
Otto Hopfland

Inventor
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N. PETERS. Photo-Lithographer. Washington, D. C.

UNITED STATES PATENT OFFICE.

CHARLES A. FENNER, OF MYSTIC RIVER, CONNECTICUT.

HANDSAW.

SPECIFICATION forming part of Letters Patent No. 297,366, dated April 22, 1884.

Application filed February 14, 1884. (No model.)

To all whom it may concern:

Be it known that I, CHARLES A. FENNER, a citizen of the United States, residing at Mystic River, in the county of New London and State of Connecticut, have invented new and useful Improvements in Handsaws, of which the following is a specification.

This invention consists in the combination, with the saw-frame, of a spindle to which one end of the saw-blade is secured, and which turns freely in a bearing formed on the frame next to the handle, the handle feathered on the spindle, a pin to which the other end of the saw-blade is attached, and which turns freely in a bearing formed on the frame farthest from the handle, and mechanism connecting the feathered handle with the freely-turning pin for positively and simultaneously rotating the spindle and pin by turning the one handle.

In the accompanying drawings, Figure 1 represents a sectional side view. Fig. 2 is a transverse section of the handle in the plane *x x*, Fig. 1.

Similar letters indicate corresponding parts.

In the drawings, the letter A designates the frame, in one end of which is loosely mounted the spindle B, to which one end of the saw-blade C is secured. In the opposite end of the frame A is loosely mounted a pin, D, to to which the other end of the saw-blade is attached. On the spindle B is placed the handle M, which is provided with a groove to engage with a feather-key, *a*, fastened in the spindle. On the inner end of the handle is firmly secured a chain-wheel, E, and the outer end of the spindle B is provided with a screw-thread, which engages with a nut, *b*, fitted into a socket on the outer end of the handle, so that by turning this nut a motion can be imparted to the spindle in the direction of its length, for the purpose of straining the saw. This straining device, however, is well known and forms no part of my invention. On the outer end of the pin D is firmly mounted a chain-wheel, F, and the frame A is provided with two brackets, G G, which form the bearings for a shaft, H, on the ends of which are mounted the chain-wheels E′ and F′. The chain-wheels E and E′ are connected by a chain, I, and the chain-wheels F and F′ by a chain, J. From this description it will be seen that if the one handle is turned a positive revolving motion is imparted simultaneously to the spindle B, and the pin D and the saw-blade can be set to any angle in relation to the frame without becoming warped. This is of great importance in such operations as marqueterie-sawing, where it is necessary that the saw-blade shall be turned in various directions while the operation of sawing progresses, and if the spindle B and the pin D, which support the ends of the saw-blade, are not connected, so that both are compelled to revolve simultaneously, the saw-blade becomes warped and the work produced is not satisfactory.

In the example represented by the drawings I have shown chain-wheels and chains for connecting the spindle and the pin; but other connections may be substituted, which will readily suggest themselves to a skillful mechanic—such, for instance, as bevel-wheels and shafts.

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

1. A handsaw consisting, essentially, of a frame or arched holder, two spindles having their bearings in said frame, the saw-blade secured to said spindles, a handle fitted on one of the spindles, and mechanism, substantially as described, for connecting said handle with the other spindle, whereby both spindles are operated or turned simultaneously for setting the saw carried thereby into different positions relatively to the frame or holder, substantially as described.

2. The combination of the spindles B and D, having chain-wheels E F, the handle M, fitted on the spindle B, the chains I, and the longitudinal shaft H, having chain-wheels E′ F′, with the frame or holder A, having bearings for the spindles and shaft, and the saw-blade C, secured to the spindles, all constructed and relatively arranged so that the turning of the handle will enable both spindles to be rotated simultaneously for setting the saw into different positions, substantially as described.

In testimony whereof I have hereunto set my hand and seal in the presence of two subscribing witnesses.

CHAS. A. FENNER. [L. S.]

Witnesses:

A. H. SIMMOND,

J. O. FISH.