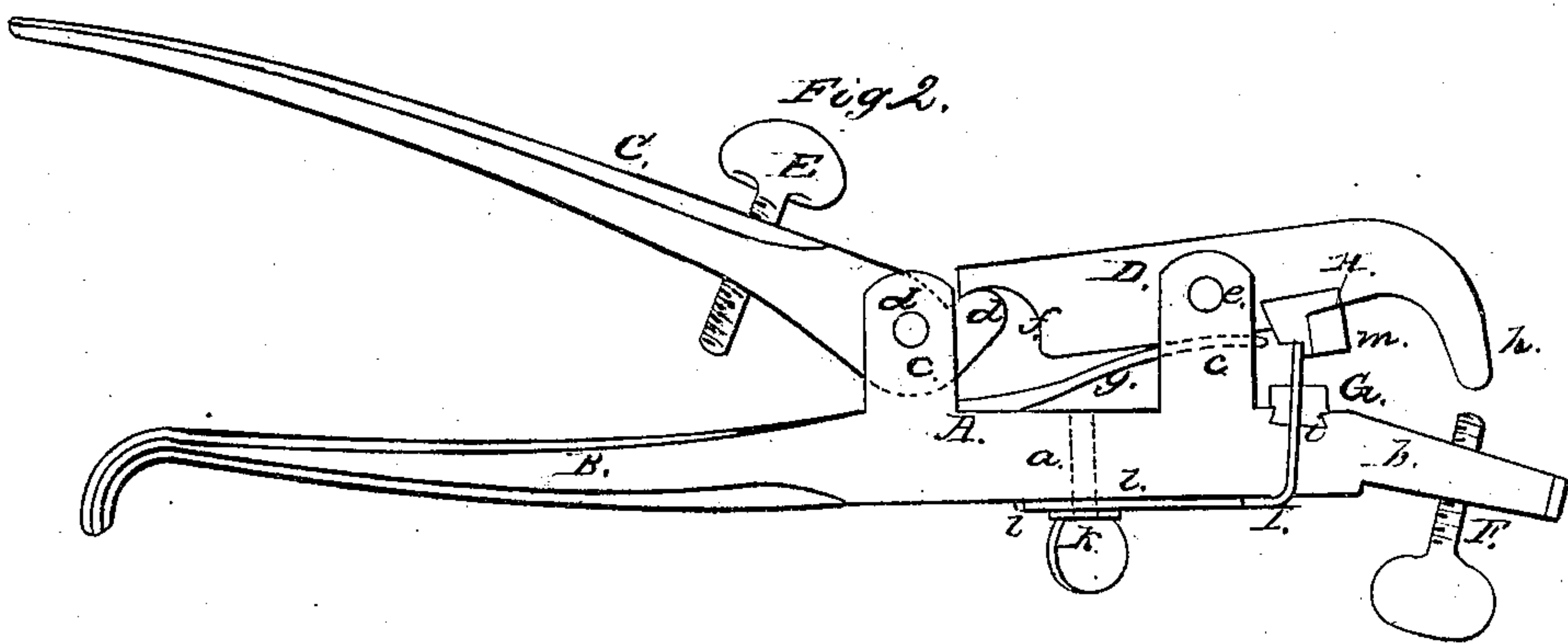


Patented July 21, 1863.



Inventor.
Oliver Norton
Per Munn & Co
Attorneys.

UNITED STATES PATENT OFFICE.

OLIVER NEWTON, OF WATERTOWN, NEW YORK, ASSIGNOR TO WILLIAM NASH, OF SAME PLACE.

IMPROVED SAW-SET.

Specification forming part of Letters Patent No. 39,323, dated July 21, 1863.

To all whom it may concern:

Be it known that I, OLIVER NEWTON, of Watertown, in the county of Jefferson and State of New York, have invented a new and Improved Saw-Set; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is an edge view of my invention; Fig. 2, a view of the same.

Similar letters of reference indicate corresponding parts in the two figures.

The object of this invention is to obtain a saw-set of simple construction which may be adapted for setting the teeth of either large or small saws, and at the same time have a powerful purchase, so as to be capable of being readily operated, and enable even unskillful hands to set a saw in a perfect manner.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents what may be termed a "frame," the same being composed of a straight portion, *a*, having an outer part, *b*, which has an oblique position relatively with *a*, and provided with two ears or projections, *c c'*, which are at right angles to *a*, as shown clearly in Fig. 2. The frame A terminates in a handle, B, of curved form, as shown in Fig. 2.

C is a handle, which performs the function of a lever and has its fulcrum-pin *d* passing through the projection *c*, the handle C being fitted in said projection, which is slotted longitudinally to receive it. The inner end of the handle C is curved and rounded, as shown at *d'*, in Fig. 2.

D is a short lever, the fulcrum-pin *e* of which passes through the projection *c'*. The inner end of this lever D is scalloped out, as shown at *f*, and this concave recess *f* is made to bear against the rounded inner end, *d'*, of the handle C by means of a spring, *g*, which is attached to the frame A and made to bear against the inner side of the lever D in front of its fulcrum-pin *e*. The outer end of the lever D is curved in hook form, as shown at *h*, said hook extending toward the oblique end *b* of the frame A.

E is a set-screw which passes through the handle or lever C, and F is a set-screw which passes through the oblique part *b* of the frame A, and at such a point as to admit of the end *h* of the lever D coming in contact with it when the handles B C are pressed toward each other as far as they are permitted by the set-screws E F.

G represents a die, which is fitted by a dovetail connection, *i*, in the frame A at the junction of the part *b* with *a*, and H is a die which is fitted similarly in the lever D, and has its front edge beveled in V form. The face of the die G is slightly inclined toward the part *a* of the frame A, from the front of said die toward its back end.

I is a gage, which is composed of a bent plate, one part, *j*, of which bears against the outer edge of the frame A, and has an oblong slot, *k*, made longitudinally in it, through which a set-screw, *l*, passes into the frame A, said set-screw passing through a washer, *m*, which bears against the part *i* of the gage. The other part, *n*, of the gage is slotted, so that the part *a* of the frame may fit into it, an equal part of *n* being at each side of *a*.

The frame, handles, and lever may be of malleable cast-iron. The dies should be of steel, properly tempered.

The saw-blade, when the implement is in use, rests or bears against the set-screw F, the tooth to be acted upon being between the two dies, with the points of the adjoining teeth in contact with gage I, the dies giving the set to the tooth when the handles B C are pressed together. The implement is shoved along from tooth to tooth, the degree of set being governed by adjusting the set-screws E F. By the arrangement of the lever D and handle C, as shown, a powerful purchase is obtained. The dies G H grasp the teeth at their base, the points being untouched in consequence of the beveled or inclined surface of the die G. The set-screw F prevents the teeth being broken by an unskillful hand, a contingency of frequent occurrence in using the saw-sets in general use. The gage I is adjusted to suit the size or length of the teeth and insure the dies acting upon them at their bases.

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

A saw-set composed of a frame, A, having a straight portion, *a*, an oblique portion, *b*, a handle, B, at one end, and two projections, *c* *c'*, and also composed of a handle, C, lever D,

gage I, spring *g*, set-screws E F, and dies G H, all arranged substantially as set forth.

OLIVER NEWTON.

Witnesses:

N. WILEY,

T. H. BUTLER.