

(No Model.)

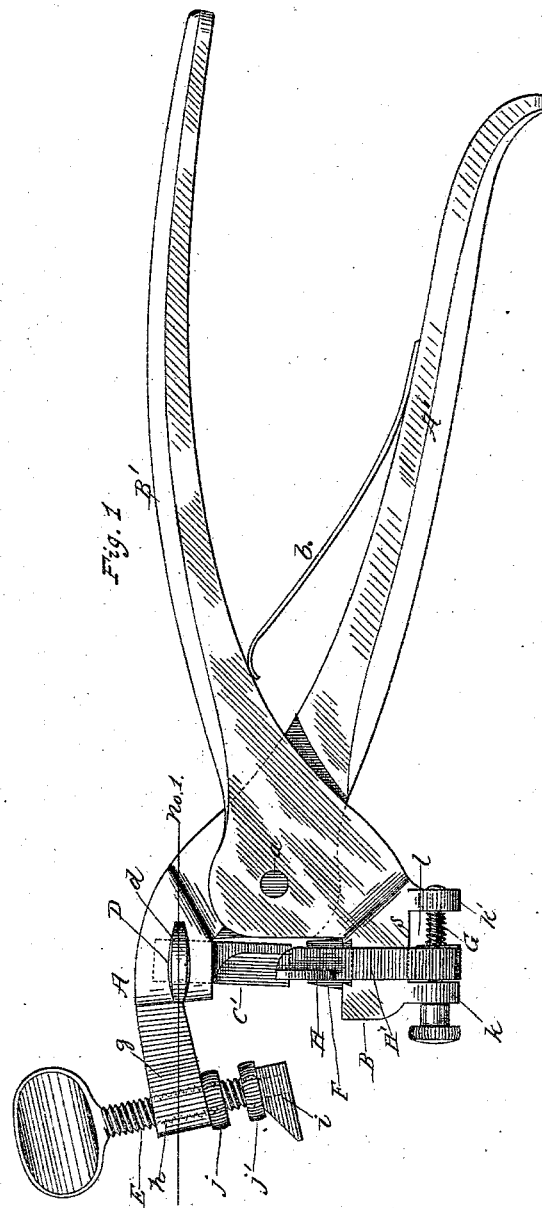
2 Sheets—Sheet 1.

C. CROISSANT.

SAW SET.

No. 303,127.

Patented Aug. 5, 1884.



Witnesses. *Charles Croissant*
Richard P. Durnan

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(No Model.)

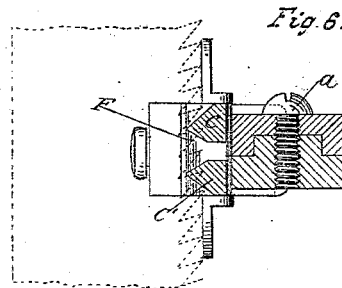
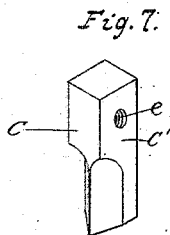
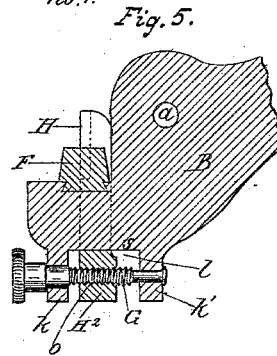
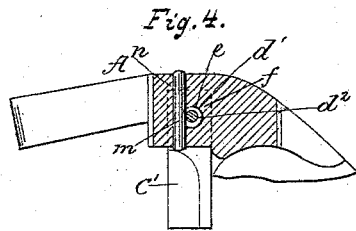
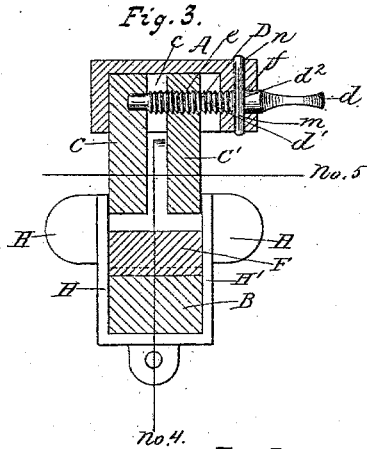
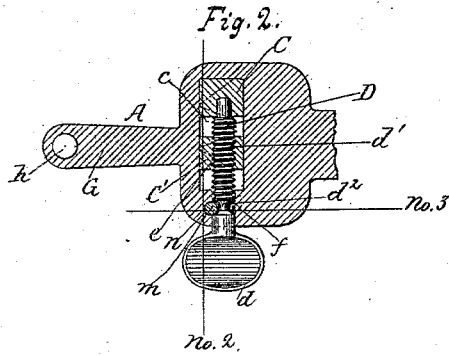
2 Sheets—Sheet 2.

C. CROISSANT.

SAW SET.

No. 303,127.

Patented Aug. 5, 1884.



Witnesses: *Charles Croissant*
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Charles Croissant
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UNITED STATES PATENT OFFICE.

CHARLES CROISSANT, OF ALBANY, NEW YORK.

SAW-SET.

SPECIFICATION forming part of Letters Patent No. 303,127, dated August 5, 1884.

Application filed January 2, 1884. (No model.)

To all whom it may concern.

Be it known that I, CHARLES CROISSANT, a citizen of the United States, residing in the city and county of Albany, and State of New York, have invented certain new and useful Improvements in Saw-Sets, of which the following is a specification.

My invention relates to certain improvements in saw-sets for which Letters Patent No. 129,892 were issued to Conrad Keller, July 30, 1872; and it consists in the combination of devices hereinafter particularly described and set forth.

The objects of my invention are, first, to provide means by which two teeth of saws—either fine or coarse saws—may be operated upon and set at each operation of the tool; second, to provide means by which both the presser-foot (for holding the saw at any preferred incline or plane) and its adjusting-screw will be securely held from shifting when adjusted and set; third, to provide means by which the device for gaging the length of the set of the teeth may be automatically adjusted and securely held to the point adjusted to. I accomplish these objects by means of the mechanism illustrated in the several views of the accompanying drawings, in which similar letters of reference indicate like parts.

In the drawings, Figure 1 represents a side elevation of a saw-set embodying my improvements. Fig. 2 is a horizontal sectional view taken at line No. 1, in Fig. 1. Fig. 3 is a vertical sectional view taken at line No. 2 in Fig. 2. Fig. 4 is a sectional view taken at line No. 3 in Fig. 2. Fig. 5 is a sectional view taken at line No. 4 in Fig. 3. Fig. 6 is a sectional plan view taken at line No. 5 in Fig. 3; and Fig. 7 is a perspective view of the movable tooth-set.

In the drawings, A represents the upper jaw of the tool, and A' is its attached handle. B is the lower jaw, and B' is its attached handle. These jaws and their handles are united together and held by the pivot-screw *a* in the usual manner. A spring, *b*, is provided for throwing the handles and jaws apart.

Made in jaw A, from its lower side, is the oblong recess *c*, as shown in Figs. 2 and 3. This recess is made with a vertical extension of one-half of one inch, more or less, accord-

ing to the size of the tool, and with a width sufficient to receive the tooth-sets employed, and with a length across from side to side slightly greater than three times the width of one of the tooth-sets this recess receives. All the inner surfaces of the walls of this recess are made vertical and at right angles with the plane of the upper side surface of its top wall, as shown by full lines in Fig. 3, and indicated by dotted lines in Fig. 4.

Fitted snugly in recess *c*, and at one end thereof, is the stationary and hardened-steel tooth-set C. Nicely fitting in said recess, so as to be movable therein, is a second tooth-set, C', also made of steel and hardened, and made with the same dimensions and form as tooth-set C, and substantially as illustrated in Fig. 7, with their lower or set end portions having an angular form, and their upper end portions entering recess *c*, with a squared form. This second and movable tooth-set, C', is pierced in its upper or shank end, from side to side, with a screw-threaded hole, *e*. The jaw A is pierced in one of its end walls of recess *c* with a plain hole, *f*, and on a horizontal line corresponding with the line of the screw-threaded hole in the shank of tooth-set C' when in place in recess *c* of jaw A.

D is an adjusting-screw provided with a thumb-head, *d*, screw-threaded stem *d'*, and an annular groove, *d''*, made in the neck of the screw between its screw-threaded stem and head, as shown in Figs. 2, 3, and 4. The jaw A is pierced with a vertical hole, *n*, which intersects with a side of hole *f* made in the end wall of recess *c*. The movable tooth-set C' is placed in recess *c* of jaw A, and adjusting-screw D is passed through hole *f* and screwed into the screw-threaded hole *e*, made in said movable tooth-set, until its end strikes against the fixed tooth-set C, when pin *m* will be inserted in hole *n* and made to engage with annular groove *d''*, made in the neck of adjusting-screw D, as shown, when said screw will be adapted to carry movable tooth-set C' in either direction toward or from fixed tooth-set C, according as said screw is turned.

Entering forward from the upper portion of jaw A is arm *g*, which is pierced with a screw-threaded hole. (Indicated by dotted lines *h* in Fig. 1.) Into this screw-threaded hole works

an adjusting-screw, E, having presser-foot *i* pivoted to its lower end, as shown. Jam-nuts *j j'* are also provided on screw E, the upper one, *j*, for holding with arm *g*, for preventing said screw from turning after being adjusted longitudinally, and the other, *j'*, for holding foot *i* from turning on the pivot end of said screw when said foot has been adjusted.

Secured in lower jaw, B, is the anvil-block F, which is made of steel and hardened. This block is arranged vertically below the tooth-sets C C' in upper jaw, A, and with a length about equal to the length of recess *c*, in which tooth-sets C C' are placed.

Made with the lower side of jaw B are ears *k k'*, which are pierced with plain holes, which receive adjusting-screw G.

Between ears *k k'* is the recess or notch *l*, made with plain upper side bearing-surface, *s*. Arranged in this recess or notch *l* is adjustable gage H H, connected by arms H' H' to shank H², which shank is pierced with screw-threaded hole *o*, corresponding with the screw-thread of screw G, and through which this screw works after passing through ear *k*. The rear end of this screw pivots in rear ear, *k'*, and has its end riveted down for holding the screw from shifting. The arms H' H' clasp the outer sides of jaw B, while the upper side of shank H² has bearing against the flat bearing-surface *s* at top of recess *l*. With this form of construction of parts the gaging parts H H will be firmly held from changing or shifting their positions and situations in relation to the anvil-block F when set by the adjusting-screw, as the united operations of adjusting-screw G and the bearing of the plane surface of the shank against the plane surface *s* of recess *l* will hold said gaging-pieces firmly from shifting or canting in either direction.

By means of the tooth-set adjusting-screw D in jaw A movable tooth-set C' may be set nearer to or farther from fixed tooth-set C, so as to adapt the tool to operate with two teeth of a fine-toothed saw or a coarser-toothed saw, as may be required.

By means of the presser-foot adjusting-screw E and jam-nuts *j j'* presser-foot *i* may be raised or lowered in relation to the plane of the top surface of anvil-block F, and be securely held from shifting, so that saws of different thicknesses and requiring different

sets to be given to their teeth may be uniformly operated with after the pressing-foot has been adjusted and secured.

By means of adjusting gage-screw G, pierced ears made with jaw B, and screw-pierced shank of the gage, gaging-pieces H H will be set nearer to a line on a plane with the line of the forward points of the tooth-sets C C', so that the tool will be adapted to be used to gage teeth of fine or coarse saws and give set to the teeth either from their base or at near their points, or at any intermediate point between the base and points of the teeth.

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

1. In a saw-set employing pivoted handled jaws, the combination, with anvil-block F, secured to one of the jaws, of a fixed tooth-set, movable tooth-set, and the mechanism above described for adjusting the latter tooth-set nearer to or farther from the former, for the purpose set forth.

2. The combination, with jaws A, provided with oblong recess *c* and fixed tooth-set C, of movable tooth-set C', pierced with a screw-threaded hole, adjusting-screw D, and holding-pin *m*, inserted in said jaw and working in annular groove *d'*, made in the neck of said adjusting-screw, substantially as and for the purpose set forth.

3. The combination, with screw-threaded arm *g*, adjusting-screw E, and pressing-foot *i*, of jam-nuts *j j'*, substantially as and for the purpose set forth.

4. In a saw-set having one of its jaws provided with one or more tooth-sets and the other with an anvil-block, as above described, the combination and arrangement of adjustable gage H H, connected by arms H' to the screw-threaded pierced shank H², with the adjusting-screw G, working loosely in ears *k k'*, made with the anvil-block jaw, and into the screw-threaded hole in shank H², for moving the latter within the recess between ears *k k'*, and adjusting and holding the gage nearer or farther from the line of the front corner of the tooth set or sets and the front side of the anvil-block, all substantially as and for the operations and purposes set forth.

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Witnesses:

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