G. W. ATKINS.

Saw Set.

No. 201,481. Patented March 19, 1878.

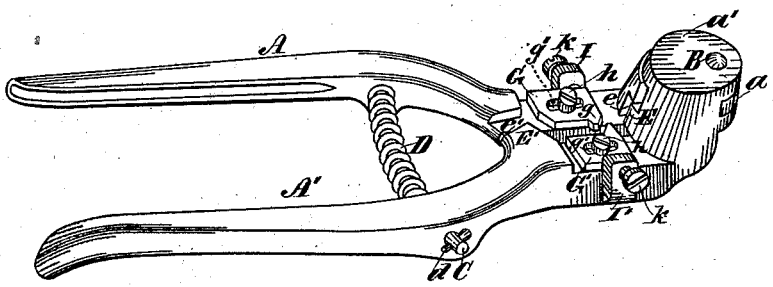

Fig. 1

Fig. 2

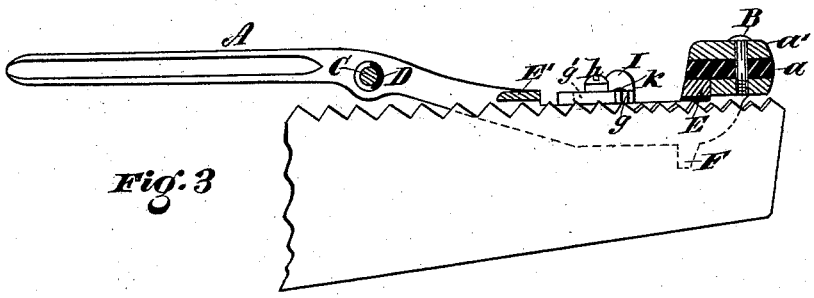

Fig. 3

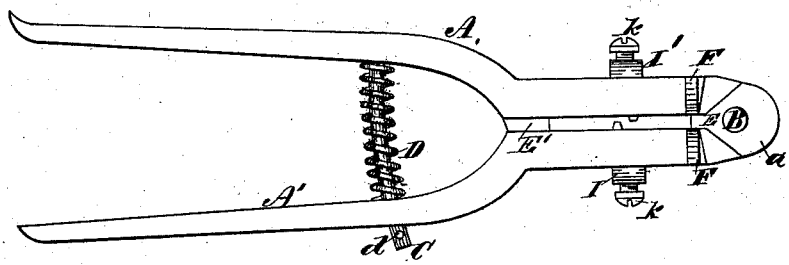

Fig. 4

WITNESSES:

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UNITED STATES PATENT OFFICE.

GEORGE W. ATKINS, OF MILTON, DELAWARE.

IMPROVEMENT IN SAW-SETS.

Specification forming part of Letters Patent No. **201,481**, dated March 19, 1878; application filed November 9, 1877.

To all whom it may concern:

Be it known that I, GEO. W. ATKINS, of Milton, in the county of Sussex and State of Delaware, have invented certain new and useful Improvements in Saw-Sets; and do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification, in which—

Figure 1 is a perspective view of my invention. Fig. 2 is a detail perspective view of one of the dies. Fig. 3 is a longitudinal vertical section, and Fig. 4 is a plan view, of the same.

My invention has for its object to provide a very efficient saw-set, which may be constructed at slight expense.

My invention consists of a saw-set composed of two pivoted arms, having pivoted adjustable dies, with guards and clamps, as hereinafter fully described.

Referring to the accompanying drawing, A and A′ are two arms, having heads *a* and *a′*, respectively, through which passes a pivot, B. C is a curved rod, firmly fastened in the arm A, and passing through an opening in the arm A′. D is a spiral spring, surrounding the rod C between the arms; and *d* is a retaining-pin, passed through the rod near its outer end and outside of the arm A′. E and E′ are guards or projections on the arm A′, having seats, when the arms A and A′ are brought together, in grooves or recesses *e e′* formed in the arm A, as shown. F F are vertical projections on the under sides of the arms A A′, forming clamps. G and G′ are bits or dies, having projecting points or nibs *g g* and slotted openings *g′ g′*, through which pass screws *h h* into the arms A A′. I I′ are lugs on the outside of the arms A A′, and *k k* are set-screws, which pass through said lugs and meet the edges of the dies G G′.

It will be observed that the die G′ and lug I′ are slightly in advance of or nearer to the pivotal connection B than are the die G and lug I.

The operation is as follows: The tool is passed down over the saw-blade, which is to be held teeth upward in a vise or other equivalent clamping device. The dies are then adjusted by means of their slots and the screws *h* and *k*, according to the size of the saw-teeth and the extent of "set" required. The arms A and A′ are now brought toward each other, turning on their connecting-pivot, by grasping and compressing their opposite or handle ends. This causes the nibs *g g* to impinge on opposite sides of alternate teeth, pressing them over and setting them. While the setting is being effected the saw-blade or back is firmly held between the clamps F F. The tool is prevented from passing down too far upon the saw-blade by reason of the points of the saw-teeth meeting the guards E E′.

The bits G G′ are formed by cutting or stamping from flat or bar steel, and are alike, so that but one size of cutting tool or die is required to make both of said setting-dies.

The arms A A′ are each cast in a single piece, the guards E E′ being, by preference, hardened, so as to avoid injury from the points of the saw-teeth.

The slots in the dies G G′ permit the latter to be moved along the arms A A′ to meet the requirements of different sizes of saw-teeth, and also allow said dies to be moved on the screws *h h*, as on pivots, to give more or less set, as may be desired, to said teeth, the required adjustment being secured by the set-screws *k*. The spring D distends the arms A A′ after each compression.

What I claim as my invention is—

1. In combination with pivoted arms A A′, formed with lugs I I′, holding set-screws *k k*, slotted dies G G′, pivoted thereon to permit their being swung to and from each other to vary the extent of set, substantially as shown and described.

2. The tool herein described, consisting of pivoted arms A A′, having guards E E′, clamps F F, and lugs I I′, with pivoted adjustable dies G G′, screws *h k*, curved rod C, and spiral spring D, constructed and arranged for operation substantially as shown and described.

3. The saw-setting tool, having the arms A

A′ pivoted together, and provided with the head enlargement shown, and having recesses cut or formed in said head and at the rear end of the arm A, as shown, for the reception of the guards E E′, the said guards being formed on the arm A′, as and for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 26th day of October, 1877.

GEORGE W. ATKINS.

Witnesses:
M. D. CONNOLLY,
CHAS. F. VAN HORN.