(No Model.)

C. C. HARRIS.

SAW SET.

No. 355,692. Patented Jan. 11, 1887.

Fig. 1.

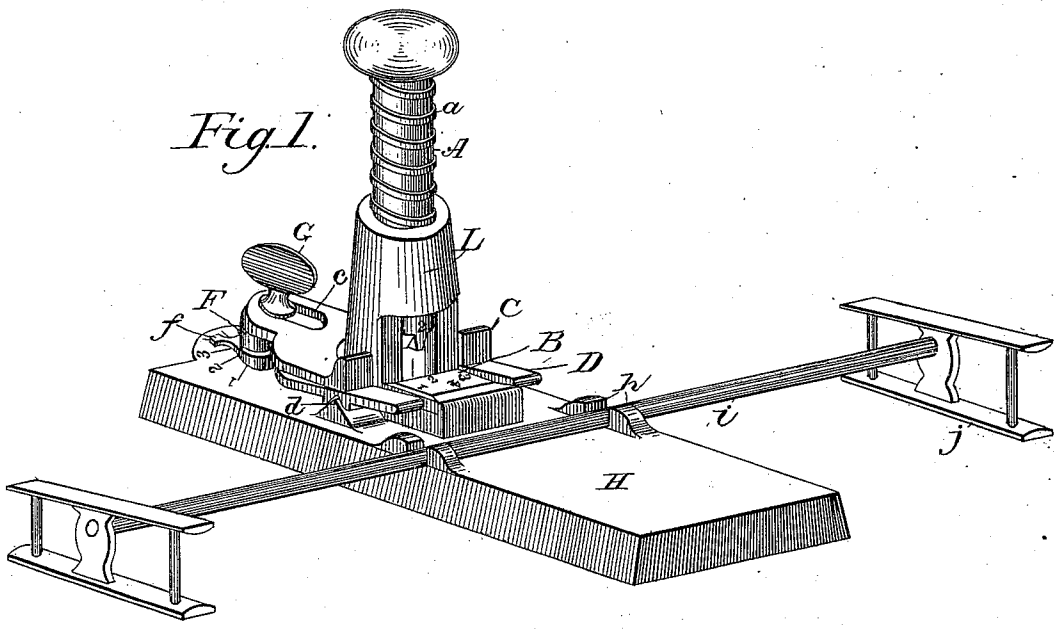

Fig. 4.

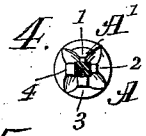

Fig. 5

Fig. 3.

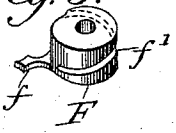

Fig. 2.

Witnesses:

M. Gardner

Jas. W. Wolcott

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UNITED STATES PATENT OFFICE.

CARLETON CHARLES HARRIS, OF DENVER, COLORADO.

SAW-SET.

SPECIFICATION forming part of Letters Patent No. 355,692, dated January 11, 1887.

Application filed October 22, 1886. Serial No. 216,954. (No model.)

To all whom it may concern:

Be it known that I, CARLETON CHARLES HARRIS, of Denver, Colorado, have invented an Improved Saw-Set, of which the following is a specification.

The object of my invention is to provide a simple and cheap instrument with which saws may be set without breaking or otherwise injuring the teeth. Saw-makers and wood-working mechanics claim that the most desirable way to set a saw to obtain the best results is to merely set the points of the teeth. I attain this by the peculiar construction of the hammers and anvils.

Figure 1 shows a detailed view, in perspective, of the instrument. Fig. 2 is a sectional view; Fig. 3, a view of the cam F, with indicator; Fig. 4, an end view of the four different hammers on the plunger A, and Fig. 5 a sectional view of the anvil.

Similar letters refer to similar parts throughout the different views.

The bed-plate H is provided with a sleeve, L, which acts as a guide for the plunger A, and is further provided with reversed-V-bearings, upon which the table D rests. The plunger A is provided with four different-sized hammers, and is made of hardened steel, and is constructed as shown in Figs. 1, 2, and 4. The hammers on the plunger are numbered 1, 2, 3, and 4.

The anvil B is formed with four beveled edges, the bevels corresponding in width to those on the hammers, and are also numbered 1, 2, 3, and 4. The anvil is fastened to the bed-plate H by the screw J, and is held firmly in place by bearing on flat surfaces on the sleeve L, and a shoulder on the bed-plate at *z*, on the bed-plate H. The anvil B forms a guide to the plunger A by pressing against the square surfaces on the plunger, between the hammer and the shoulder M on the plunger. The anvil also acts as a stop, which keeps the plunger from rising above a certain point by coming in contact with the shoulder M on the lower end of the plunger A as the spring *a* forces the plunger upward.

The table D is used for the purpose of giving the different widths of set to the teeth, or the different bevels required to properly set the teeth, and is operated by revolving the cam F, and the motion is attained by a projection on the rear end of the table D, working in a groove in the cam F at *f'*. The different bevels are given by the indicator *f* passing over a numbered disk on the bed-plate H. The top-gage, C, is for the purpose of keeping the saw-teeth from coming in contact with the square surfaces of the plunger A; it slides on top of the table D, and prevents the table D from rising out of its bearings. The thumb-screw G passes through a slot in the gage C and through the cam F and screws into the bed-plate H, and when screwed down tight it holds the gage C, the table D, and the cam F firmly in place.

The sliding rest *j* is formed, as shown in Fig. 1, by fastening a properly-constructed foot on each end of a small rod, *i*. The rod slides through bearings *h* on the bed-plate H. The sliding rest is for the purpose of holding the saw parallel while passing under the hammer, and will not allow it to buckle or hang over, as is the case in setting saws with the hammer-sets now generally in use.

The steel plug I is screwed into the bed-plate H under the plunger A, and is for the purpose of preventing the hammers from breaking or otherwise injuring the saw-teeth. To operate it properly, first press the plunger down until the shoulder M on the plunger rests on the plug, then screw up the plug until it will raise the hammer off the anvil, leaving the space between the hammer and anvil equal to the thickness of the saw-blade. If properly used, it is impossible to injure the saw-teeth. In setting a saw, first get the desired pitch to the table D by turning the cam F, then slide the top gage forward until it will prevent the saw-teeth from coming in contact with the square surfaces of the plunger A, then fasten them in place by the thumb-screw G, then place the saw on the table *j*, letting the teeth rest on the anvil B, with the point of the tooth to be set opposite the vertical line on the flat surface of the plunger under the hammer, strike the top of the plunger with the palm of the hand or a light mallet. A light blow is sufficient to perform the operation.

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

The combination of the bed-plate H, the plunger and hammer A, the anvil B, the table D, the cam F, with indicator *f*, the thumb-screw G, the top gage, C, and the sliding table *j*, all substantially as described, and for the purpose set forth.

CARLETON CHARLES HARRIS.

Witnesses:
ALMOND DIBBLE,
THOS. RICH.