No. 615,798. Patented Dec. 13, 1898.

R. BROWN.

SAW SET.

(Application filed June 20, 1898.)

(No Model.)

Fig. 1.

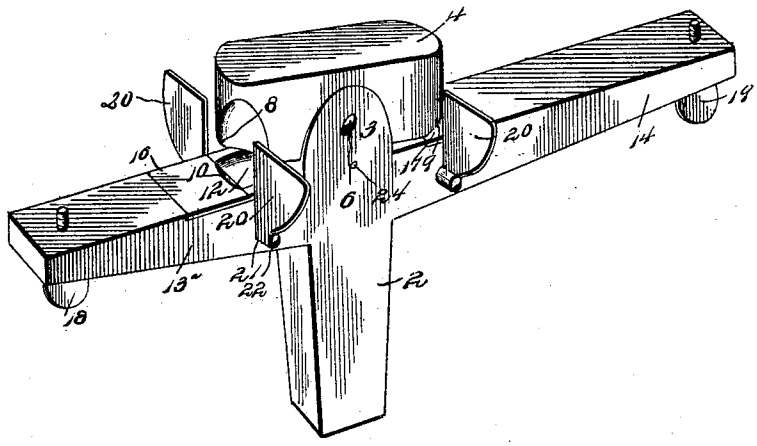


Fig. 2.

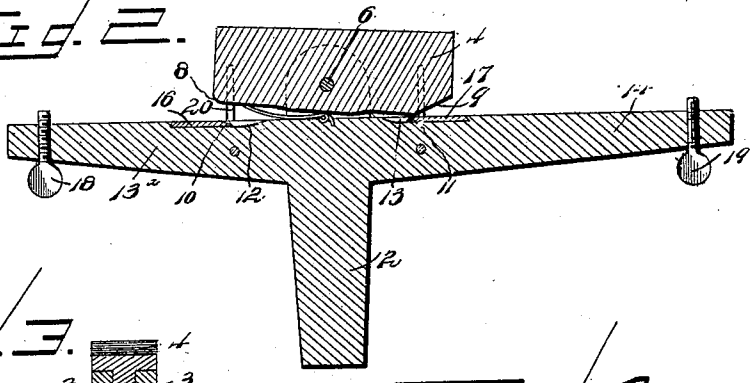


Fig. 3.

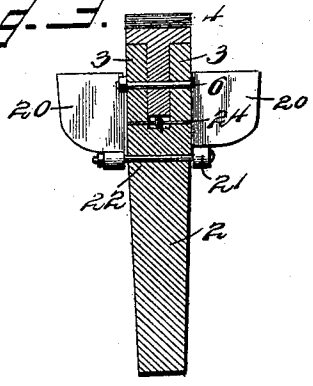
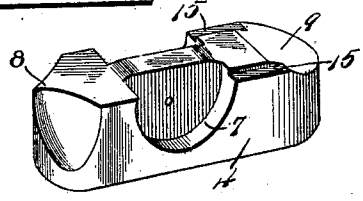


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

RALPH BROWN, OF LEROY, MICHIGAN.

SAW-SET.

SPECIFICATION forming part of Letters Patent No. 615,798, dated December 13, 1898.

Application filed June 20, 1898. Serial No. 683,977. (No model.)

To all whom it may concern:

Be it known that I, RALPH BROWN, a citizen of the United States, residing at Leroy, in the county of Osceola and State of Michigan, have invented a new and useful Saw-Set, of which the following is a specification.

The invention relates to improvements in saw-sets.

The object of the present invention is to improve the construction of saw-sets and to provide a simple, inexpensive, and efficient device adapted for operating on both handsaws and crosscut-saws and capable of ready adjustment to give the teeth of a saw the desired amount of set and of setting the same uniformly.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of a saw-set constructed in accordance with this invention. Fig. 2 is a longitudinal sectional view. Fig. 3 is a transverse sectional view. Fig. 4 is a detail perspective view of the double hammer, showing the lower face thereof.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates a base or anvil provided with a depending shank 2, designed to be arranged in an opening of a bench or other suitable support and located near the center of the anvil, so that one arm of the same will be longer than the other, for a purpose hereinafter described. The anvil is provided at a point above the depending shank with a pair of upwardly-extending perforated ears 3, between which is mounted a double hammer 4 by means of a transverse pivot or fastening device 6, which passes through the perforations of the ears and a corresponding perforation of the double hammer.

The ears, which have their upper edges rounded, are substantially segmental, and the double hammer is provided at opposite sides with corresponding recesses 7 to receive the ears, which support the hammer and relieve the fastening device or pivot of strain, so that there is no liability of breaking the said pivot or fastening device during the operation of the saw-set. The ends 8 and 9 of the double hammer are beveled, as shown, to correspond to inclined portions 10 and 11 of the anvil, which is provided at the inner sides of the beveled portions with recesses 12 and 13.

The shorter arm 13^a of the anvil is adapted to receive the blades of handsaws, and the longer arm 14 is for the reception of crosscut-saws. The double hammer has its sides oppositely beveled adjacent to the beveled portion 8 to reduce it and adapt it for engaging the teeth of a handsaw, and the other end of the hammer has a broad beveled portion 9, before referred to, for engaging the teeth of a crosscut-saw, and the bottom of the hammer adjacent to the beveled portion 9 is recessed at opposite sides at 15, as shown.

The beveled or inclined portions 10 and 11 of the anvil are preferably formed on removable face-plates 16 and 17, arranged in dovetailed recesses and having their edges beveled to correspond to the walls of the dovetailed recesses. The plates which receive the teeth of a saw are designed to be constructed of hard material, such as fine steel, and when injured through excessive use they may be readily renewed without discarding the anvil.

The saws are supported in position to give them the desired amount of set by vertically-disposed set-screws or adjusting-screws 18 and 19, passing upward through threaded perforations of the arms of the anvil and having heads at their lower ends. The adjusting-screws are adapted to project above the upper face of the anvil, and by varying the projecting portions the desired amount of set may be obtained. To increase the set, the adjusting-screws are lowered and by raising them the degree of set is lessened.

In the operation of the device a saw-blade is arranged on one of the arms of the anvil beneath the adjacent end of the hammer, which is struck, causing it to strike a tooth and bend the same against the adjacent beveled portion of the anvil, so that the said tooth will be arranged at the proper angle to the body portion of the blade or saw, as will be readily understood.

In order to enable a saw-blade to be properly positioned on the anvil, each arm is pro-

vided with a gage consisting of a pair of oppositely-disposed plates or wings 20, disposed transversely of the anvil at the sides thereof and having straight inner vertical edges to fit the same. The guide plates or wings, which project above the upper face of the anvil, are located at points between the ends of the hammer and the perforated ears 3 and are provided at their lower edges with eyes 21. The eyes 21 are located adjacent to the inner vertical edges of the guide plates or wings, and each pair of the latter is connected by a transverse screw 22, which passes through a perforation of the anvil and adjustably secures the plates or the wings to the same. The plates or wings are arranged in a vertical position, and they may be adjusted on their pivots or fastening devices, as will be readily seen.

One end of the hammer is maintained in an elevated position by a longitudinal spring 23, secured at its inner face between the perforated ears by a transverse fastening device 24 and adapted to be readily arranged at either end of the hammer. As the spring is adapted to be reversed, either end of the hammer may be held in an elevated position.

The invention has the following advantages:

The saw-set, which is simple and comparatively inexpensive in construction and positive and reliable in operation, is adapted to set the teeth of either a handsaw or a crosscut-saw.

The saw-set is capable of ready adjustment to afford the necessary amount of set, and it is provided with an efficient gage, so that a saw-blade may be properly positioned on the handle to enable all the teeth to be set exactly alike. When the anvil becomes worn, it may be readily removed by simply removing the plates and supplying new ones.

Changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

What I claim is—

1. A saw-set, comprising an anvil provided with oppositely-disposed arms having inclined faces adapted to receive the teeth of a saw-blade, and a double hammer fulcrumed between its ends and having the latter arranged over the said inclined faces and cooperating with the same, substantially as described.

2. A saw-set, comprising an anvil provided with upwardly-extending ears and having arms projecting from opposite sides of the same, said arms being provided with inclined faces adapted to receive saw-teeth, a double hammer fulcrumed between its ends on the perforated ears, and having its ends arranged over the said inclined faces, and means for adjusting the saw-blade, substantially as described.

3. A saw-set comprising an anvil provided with oppositely-disposed arms adapted to receive the teeth of a saw-blade, and a double hammer fulcrumed between its ends and having the latter arranged over the said arms and adapted to engage a saw, substantially as described.

4. A saw-set, comprising an anvil provided with perforated ears and having arms extending from opposite sides of the same, a double hammer pivoted between its ends to the ears, and provided at each end with an engaging face, and a reversible spring secured at its inner end between the ears and adapted to engage and hold either end of the hammer normally elevated, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

RALPH BROWN.

Witnesses:
ELLEN ALLEN,
PETER OLSON.