

No. 832,941.

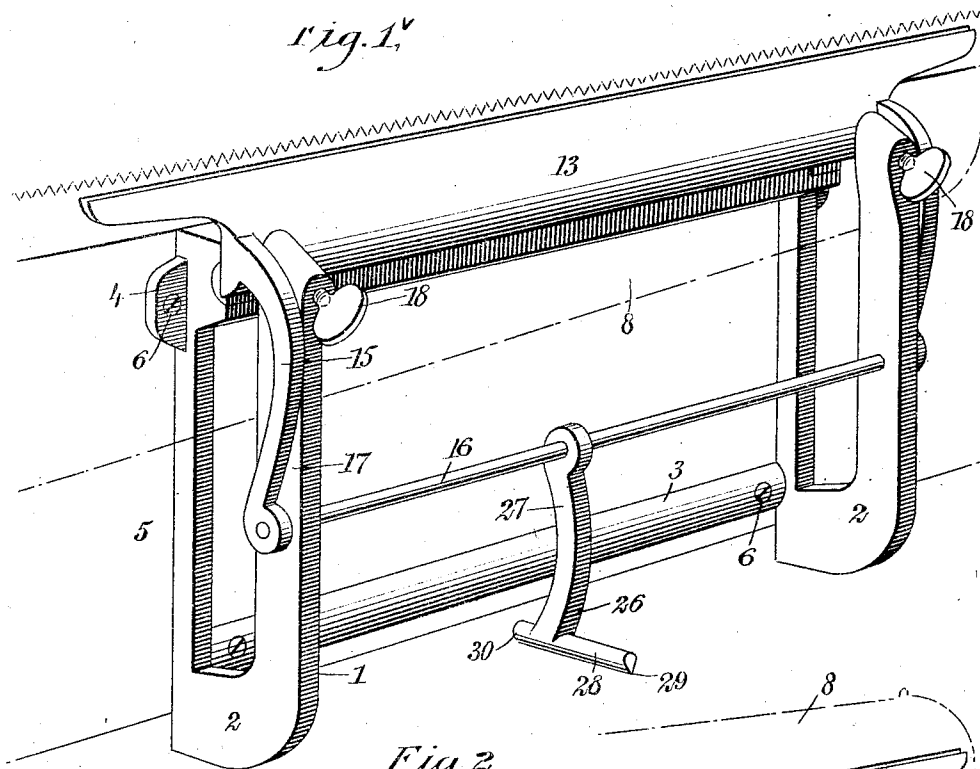
PATENTED OCT. 9, 1906.

H. W. WEST.  
SAW SET.

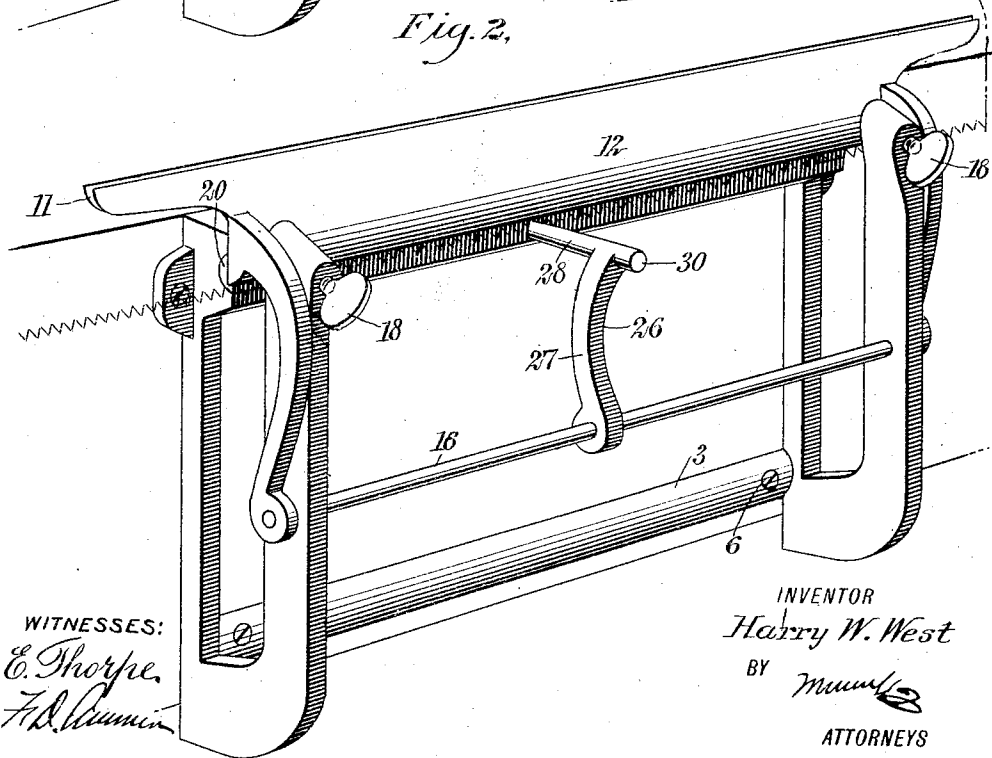
APPLICATION FILED JULY 1, 1905.

2 SHEETS—SHEET 1.

*Fig. 1.*



*Fig. 2.*



WITNESSES:  
*E. Thorpe.*  
*F. D. Cummin*

INVENTOR  
*Harry W. West*  
BY *Mumford*  
ATTORNEYS

No. 832,941.

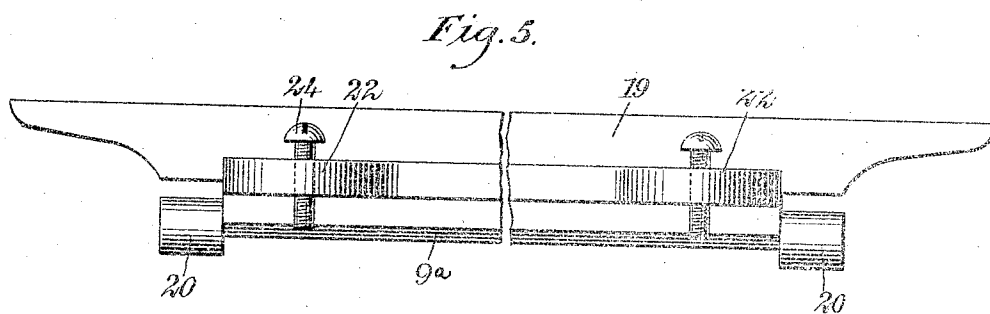
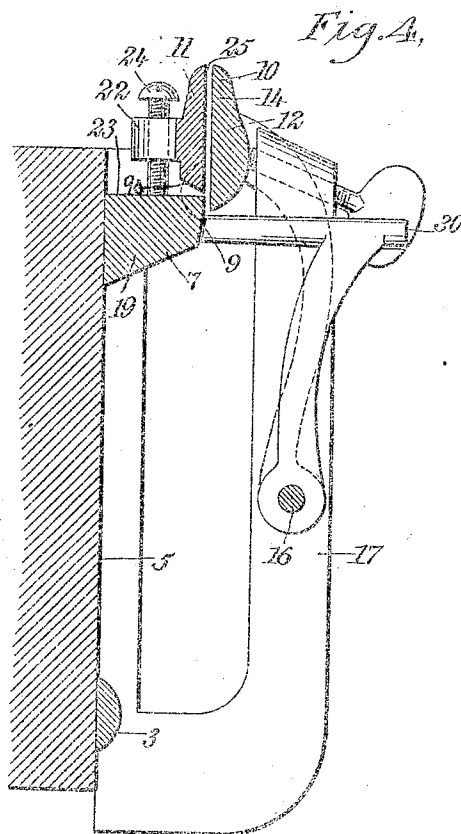
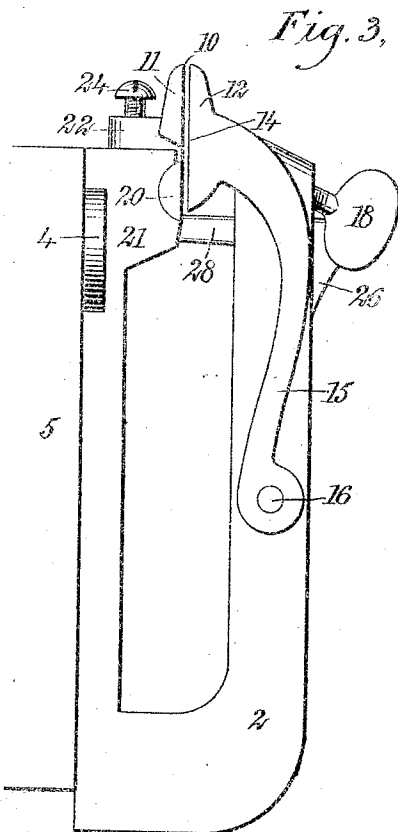
PATENTED OCT. 9, 1906.

H. W. WEST.

SAW SET.

APPLICATION FILED JULY 1, 1905.

2 SHEETS—SHEET 2.



WITNESSES:

Edward Thorpe  
F. D. Munroe

INVENTOR

Harry W. West

BY

Munroe

ATTORNEYS

# UNITED STATES PATENT OFFICE.

HARRY W. WEST, OF VICTORIA, BRITISH COLUMBIA, CANADA.

## SAW-SET.

No. 832,941.

Specification of Letters Patent.

Patented Oct. 9, 1906.

Application filed July 1, 1905. Serial No. 267,886.

*To all whom it may concern:*

Be it known that I, HARRY W. WEST, a subject of the King of Great Britain, and a resident of Victoria, in the Province of British Columbia and Dominion of Canada, have invented a new and Improved Saw-Set, of which the following is a full, clear, and exact description.

This invention relates to saw-sets; and the object of the invention is to produce a saw-set of simple construction which can be readily manipulated in such a way as to give any desired set to the teeth.

A further object has been to construct the device so that it constitutes a convenient vise for holding the saw-blade during the sharpening or filing operation.

The invention consists in the construction and combination of parts to be more fully described hereinafter and definitely set forth in the claim.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar reference characters designate similar parts in all the views.

Figure 1 is a perspective of the device, representing the saw-blade in dotted outline as held in position for sharpening. Fig. 2 is a perspective similar to Fig. 1, but representing the saw-blade in an inverted position, in which position it is held when the teeth are being set. Fig. 3 is an end elevation of the device. Fig. 4 is a vertical cross-section, and Fig. 5 is a rear elevation of the main jaw of the vise. This, however, is broken away at its middle portion, as will appear.

Referring more particularly to the parts, 1 represents the frame of the device, which comprises a pair of oppositely-disposed brackets 2, united by a connecting-bar 3. These brackets at their upper portions are provided with ears 4, which facilitate their attachment to the vertical face of a work bench or table 5. Suitable fastening devices 6 would be applied to these ears, and also to the aforesaid bar 3. The upper portion of the device is formed into a heavy horizontal bar or beam 7, as illustrated most clearly in Fig. 4, the rear face of which lies against the side of the table, as indicated. This bar 7 constitutes an anvil, against which the teeth of a saw 8 may be set. For this purpose the forward face of the bar or anvil 7 is beveled, so as to present an inclined cheek 9. The manner in which this cheek operates to enable the teeth of the saw

to be set will be described more fully hereinafter. In order to hold the saw in position, the upper part of the device is formed into a vise 10, having a main jaw 11 and a clamping-jaw 12. The outer jaw 12 presents an elongated body 13, formed with a substantially vertical clamping-face 14, and near its extremities this body is formed with integral arms 15, which preferably curve downwardly and outwardly, as shown, their lower extremities being rotatably mounted upon a shaft 16. This shaft 16 is supported at its extremities in vertical arms 17, which project upwardly and constitute the outer portions of the brackets 2. In order to enable the jaw 12 to be adjusted toward its opposing jaw, the upper extremities of the arm 17 are provided with set-screws 18, the extremities whereof project on the inner edges of the arms and abut against the outer face of the body 13 of the jaw. Evidently by screwing these adjusting-screws up the jaw 12 may be adjusted inwardly in the direction of the main jaw 11.

The construction of the main jaw 11 is very clearly illustrated in Fig. 5. It comprises an elongated body 19, which is similar in form to the body 13 of the opposite jaw. Near its extremities the body 19 is formed with longitudinally-projecting gudgeons 20, which are of half-round form, as indicated in Fig. 3. These gudgeons are received in half-round recesses 21, formed in the outer face of the anvil 7 at its extremities. On the rear face of the body 19 of the jaw projecting ears 22 are provided which are disposed a slight distance above the upper face 23 of the anvil, as indicated in Fig. 4. Through these ears 22 adjusting-screws 24 pass, and the extremities of these adjusting-screws rest upon the face 23, as indicated. With this arrangement the jaw 11 is held in position on the anvil, and it evidently may be adjusted by means of the screws 24, so as to alter the position of its clamping-face 25. As shown clearly in Fig. 4, the clamping-face 25 of the main jaw 11 is substantially flush with the forward face of the anvil, this arrangement being adopted for a purpose which will appear more fully hereinafter. The main jaw 11 presents a longitudinally-disposed lower edge 9<sup>a</sup>, which is beveled, as shown most clearly in Fig. 4. The intersection of this edge with the outer face 25 of the jaw lies substantially upon the axes of the gudgeons 20. As stated above, the gudgeons 20 are

of half-round form, and their flat faces constitute continuations of the outer face 25 of the main jaw 11. From this arrangement the jaw 11 may be readily set into position by moving the same laterally in a horizontal position and so that the gudgeons 20 will pass into their recesses.

Upon the shaft 16 there is loosely mounted so as to slide and rotate a punch 26, said punch comprising an arm 27 and a body 28. As indicated in Fig. 1, the forward extremity of the punch-body 28 has the form of a segment of a circle presenting an acute or V-pointed edge 29.

In operating the device to sharpen the teeth of a saw with an instrument such as a file the saw would be held in position as indicated in Fig. 1. The teeth of the saw would then project just above the clamping-jaw in a convenient position to have the sharpening instrument applied thereto. As will be readily understood from the description of the vise, the saw-blade would be held firmly in position by screwing up the adjusting-screws 18, said screws operating to clamp the saw-blade against the main jaw 11. When using the device to set the teeth of a saw, the saw-blade would be turned into an inverted position, such as that indicated in Fig. 2, at which time the teeth would project below the lower edge of the clamping-jaw 12 and lie substantially in front of the inclined cheek 9, described above. When the saw held in this position the punch 26 would be applied, as indicated in Fig. 2. Its point would be applied to the alternate teeth, and when so applied the butt 30 of the punch would be struck by a hammer, so as to force these alternate teeth against the beveled cheek 9. In this way the teeth would be offset or set from the plane of the body of the blade. The free sliding connection of the punch with the shaft 16 enables the punch to be slid along from tooth to tooth until the setting operation is finished. After all of these alternate teeth have been set in the manner described the saw-blade would then be reversed, so as to enable the intermediate

teeth to be set in a similar manner. By adjusting the screws 24 the angular position of the main jaw 11 can be changed as described. In this way the position in which the saw-blade is held may be varied. Consequently the amount of set of the teeth can be controlled, the same being more or less, depending upon the angular position of the jaw 11, as will be readily understood. Attention is called to the fact that in adjusting the main jaw 11 the gudgeons 20 thereof operate as axes of rotation toward the same. Furthermore, as indicated in Fig. 4, the inner end or face 29 of the punch is cut on an incline or bevel corresponding with the inclination of the beveled cheek 9.

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

A saw-set, comprising bifurcated brackets having their inner members connected by bars, the upper bar being enlarged and forming an anvil, the brackets being provided with means whereby they may be secured to a bench, a main jaw pivotally and adjustably mounted on the anvil, a movable jaw provided at each end with a downwardly-curved arm, said jaw being of a width greater than that of the main jaw with its upper edge flush with the upper edge of said main jaw and its lower edge extending down below the upper face of the anvil, a rod secured in the outer members of the brackets with its ends projecting through the same and upon which ends the arms of the movable jaw are pivoted, a punch having an arm projecting at an angle therefrom, said arm being loosely mounted upon the said rod, and a screw working in the upper end of each of the outer members of the brackets and engaging the movable jaw.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HARRY W. WEST.

Witnesses:

ROY E. PEABODY,  
JOHN MORGAN.