No. 811,392. PATENTED JAN. 30, 1906.

P. A. GIANERA.

SAW SET.

APPLICATION FILED JULY 13, 1905.

Fig. 1

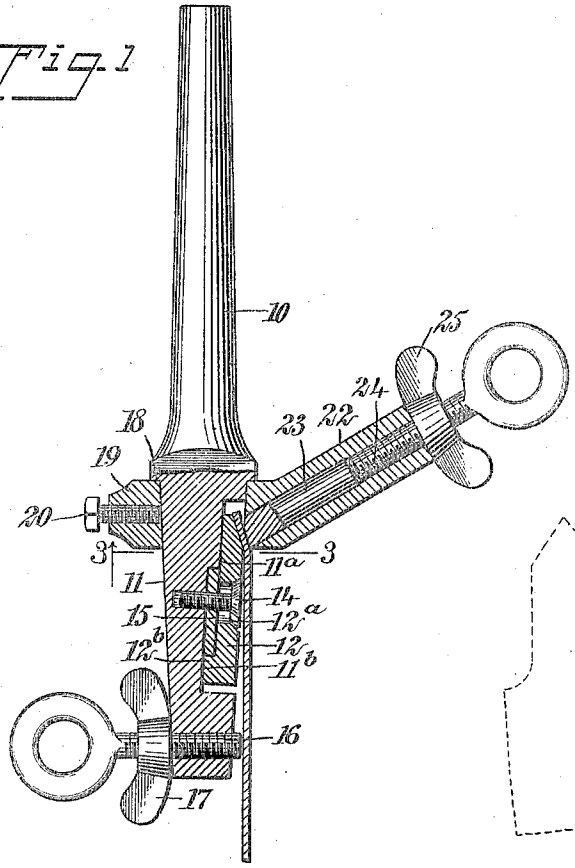



Fig. 2

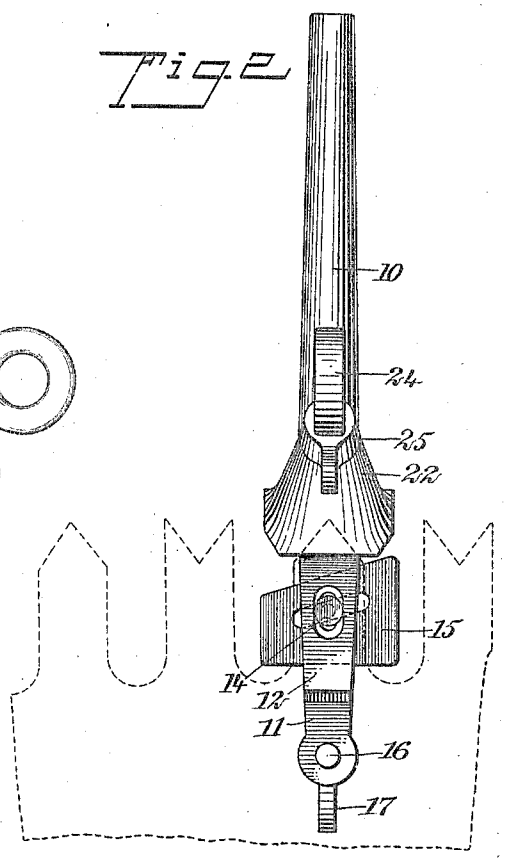
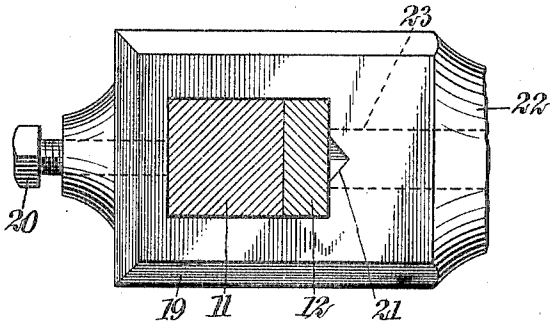



Fig. 3




WITNESSES:

J. A. Brophy

Isaac B. Owens.

INVENTOR

Peter A. Gianera

BY Munn & Co

ATTORNEYS

# UNITED STATES PATENT OFFICE.

PETER ANTON GIANERA, OF GUALALA, CALIFORNIA.

## SAW-SET.

No. 811,392. Specification of Letters Patent. Patented Jan. 30, 1906.

Application filed July 13, 1905. Serial No. 269,480.

*To all whom it may concern:*

Be it known that I, PETER ANTON GIANERA, a citizen of the United States, and a resident of Gualala, in the county of Mendocino and State of California, have invented a new and Improved Saw-Set, of which the following is a full, clear, and exact description.

The invention relates to a means for setting the cutting-teeth of drag or crosscut saws.

The object of the invention is to provide a device adapted to saws of all sizes and by means of which the teeth may be readily set at any desired angle.

The invention resides in certain novel features of construction and relative arrangement of parts, which will be fully set forth hereinafter and pointed out in the claims.

Reference is had to the accompanying drawings, which illustrate as an example the preferred embodiment of my invention, in which drawings like characters of reference indicate like parts in the several views, and in which—

Figure 1 is a sectional elevation showing the device in use. Fig. 2 is a side elevation, the position of the saw being indicated by broken lines; and Fig. 3 is a view looking upward from the line 3 3 of Fig. 1.

The device is provided with a shank 10, the upper end of which is adapted to be struck by a hammer, as will hereinafter appear. At its end the shank carries the body 11 of the set. The body is rectangular in cross-sectional form and tapers from the shank downward. It is provided in one of its faces with a cavity having two depths, (designated $11^a$ and $11^b$, respectively.) Fitted in this cavity is an anvil-plate 12, which is allowed a limited longitudinal adjustment by means of a screw 14, fitting in a slot $12^a$ in the anvil-plate. The screw 14 operates in the body 10 of the set, as shown. The lower end of the anvil-plate has a hook or shoulder $12^b$ thereon, which is engaged by a wedge 15. This wedge is slotted to receive the screw 14 and is movable transversely on the body 11. By means of this wedge the anvil-plate may be moved downward, this operation being best effected by lightly striking the wedge with a hammer, the screw 14 being loosened to permit the free movement of the wedge. At its lower end the body is provided with a gage-screw 16, which is threaded in the body and adapted to project transversely beyond the side thereof having the cavities $11^a$ and $11^b$. 17 indicates a lock-nut for the said screw.

At its lower end the body is provided with a shoulder 18, and the portion of the body below the shoulder is encircled by a yoke 19, which bears against the shoulder, the shoulder limiting the movement of the yoke upward on the body. 20 indicates a set-screw for fastening the yoke in place. Said yoke incloses the upper end of the cavity in the side of the body and is provided on its under side, adjacent to said cavity, with a notch 21. (Shown best in Fig. 3.) Projecting diagonally upward from the yoke 19 is a tubular arm 22, in the lower part of which a die 23 is movably placed. This die has its lower end juxtaposed to the notch 21 and has a notched end corresponding therewith. In the upper part of the tubular arm 22 the screw 24 is threaded, this screw being adapted to actuate the die 23. 25 indicates a lock-nut for the screw 24.

In the use of the device the anvil-plate 12 is adjusted on the body 11, so as to regulate the length of the bend or set which is to be given to the cutting-teeth of the saw. By moving the anvil-plate downward from the position shown in Fig. 1 a longer bend will be given, and by moving the plate upward a shorter bend will be given. After the anvil-plate has been adjusted it should be fastened by the screw 14. The gage-screw 16 is then adjusted so as to regulate the inclination of the set or the degree to which the teeth are bent over. The farther this screw is projected beyond the body the sharper will be the angle of the bending of the teeth. The screw 24 should then be moved outward, so as to permit the die 23 to move back and allow the entry of the point of the cutting-teeth into the notch 21 between the yoke 19 and the upper end of the anvil-plate 12. When this has been done, the screw 24 should be moved back until the die 23 contacts with the teeth, and then the entire device should be turned until the gage-screw 16 strikes the side of the saw. The operation may be finished by striking the shank 10 with a hammer or other tool, causing the teeth to be forced in between the die and anvil-plate and giving it a permanent set or bend.

The die 23 is removable to allow dies of other form to be used in its stead, thus adapting the device to various sorts of saws.

Having thus described the preferred form

of my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A saw-set comprising a body, an anvil-plate provided with a vertical slot, a wedge acting between the body and the anvil-plate and provided with an inclined slot, a screw traversing the slot in the anvil-plate and the wedge, and a die connected with the body for coöperating with the anvil-plate.

2. A saw-set having a body, an anvil-plate having an inclined edge thereon, a die for cooperating with the anvil-plate, means for adjusting the anvil-plate longitudinally of the body, comprising a wedge acting between the body and the inclined edge of the anvil-plate, and means for movably securing the anvil-plate and the wedge to the body.

3. A saw-set comprising a body having an anvil connected therewith, a yoke encircling the body, a tubular arm projecting from the yoke, a die mounted on the tubular arm, and means for adjusting the die.

4. A saw-set comprising a body having an anvil connected therewith, a yoke encircling the body, a tubular arm projecting from the yoke, a die mounted on the tubular arm, and means for adjusting the die, said means comprising a screw threaded in the tubular arm and engaging the end of the arm.

5. A saw-set having a body, an anvil-plate thereon having inclined outer surface at its upper end, a die for coöperating with the inclined surface of the anvil-plate, means for adjusting the die to and from the inclined surface of the anvil-plate, and means for adjusting the anvil-plate longitudinally of the body.

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

PETER ANTON GIANERA.

Witnesses:

J. R. CHRISTENSON,

JOHN HARDEN.