(No Model.)

J. A. MINGER.

SAW SETTING TOOL.

No. 524,641. Patented Aug. 14, 1894.

Fig. 1.

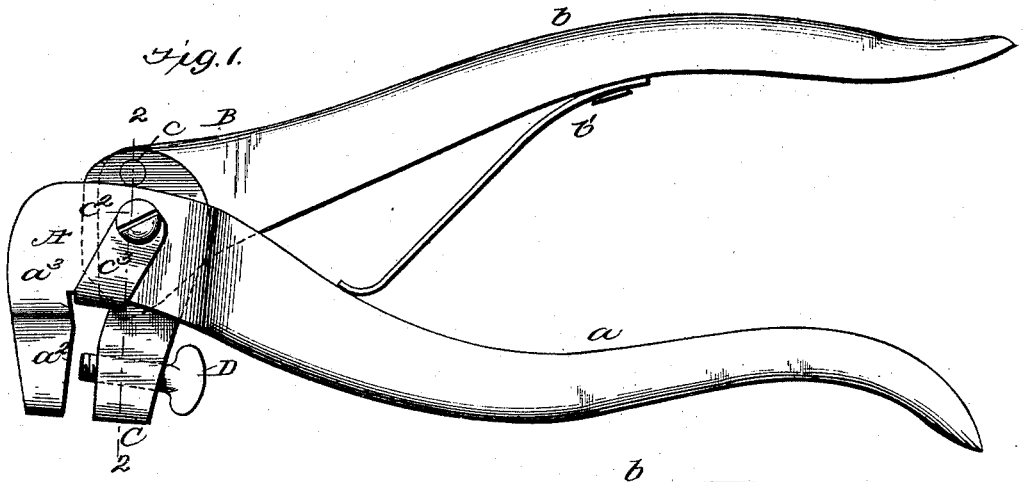


Fig. 3.

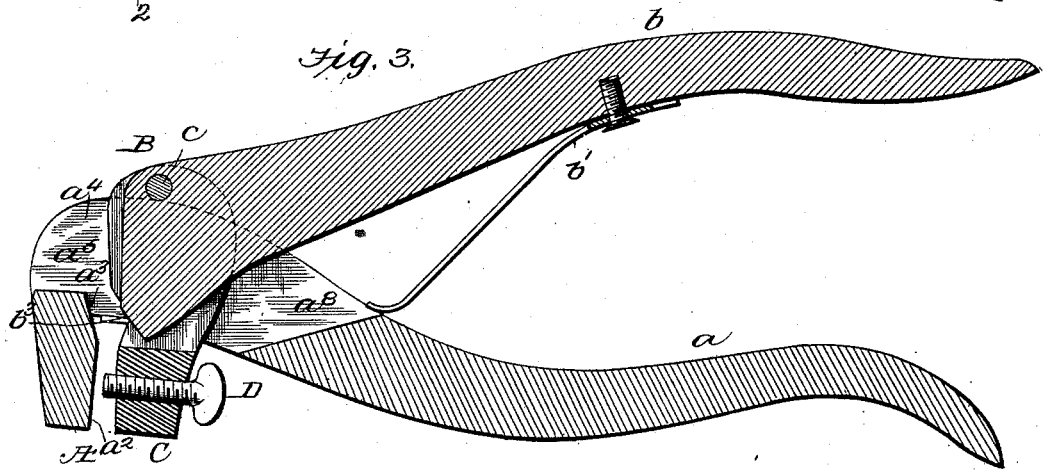


Fig. 2.

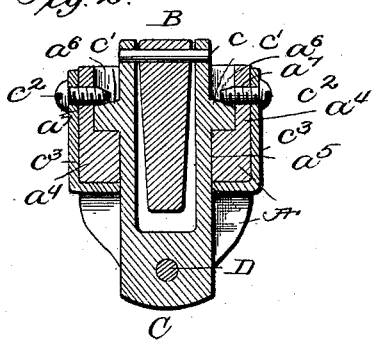
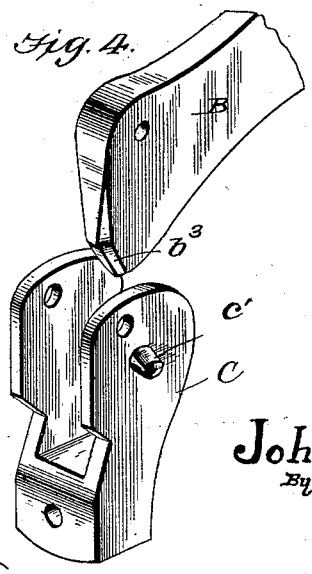


Fig. 4.



Witnesses

J. Hudson Mills

Chas. E. Brock

Inventor

John A. Minger

By R. S. & A. Lacey

Attorneys

UNITED STATES PATENT OFFICE.

JOHN A. MINGER, OF BERN, KANSAS.

SAW-SETTING TOOL.

SPECIFICATION forming part of Letters Patent No. 524,641, dated August 14, 1894.

Application filed April 12, 1894. Serial No. 507,286. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. MINGER, a citizen of the United States, residing at Bern, in the county of Nemaha, State of Kansas, have invented certain new and useful Improvements in Saw-Setting Tools; and I 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 appertains to make and use the same.

This invention relates to an improved saw setting instrument.

The object of this invention is to provide a very strong, simple and durable device which shall consist of very few parts and the principal object is to so construct and arrange these parts that the saw will be securely held during the setting operation, the pressure given to the setting hammer being communicated to the clamping jaw so that the harder the tooth is pressed the tighter the saw will be clamped.

With these objects in view my invention consists essentially of the anvil jaw and handle, the setting jaw and handle and a clamping jaw pivoted within the body of the anvil handle, and pivotally connected with the setting jaw at a point above its pivotal point so that when the setting jaw or hammer is brought against the tooth the pressure on the handle will be communicated to the upper end of the clamping jaw and acting on its pivot as a fulcrum its lower end will be brought into engagement with the saw body and securely hold the same during the setting operation.

The invention consists, also, in certain details of construction and novel combination of parts, all of which will be fully described hereinafter, and pointed out in the claims.

In the drawings forming a part of this specification,—Figure 1 is a side view of an improved device. Fig. 2 is a transverse section on line 2—2. Fig. 3 is a longitudinal section. Fig. 4 is a detail view of the setting and clamping jaws together with the adjusting screw.

In the practical construction of my device I use an anvil jaw A, a setting jaw B and a clamping or holding jaw C. The jaws A and B are formed with handles a and b respectively, to which pressure is applied by grasping them in the hand. A spring b' is attached to the handle b and serves to normally hold the handles and jaws apart. The jaw A is formed with an anvil a' having a flat lower face a^2 and inclined upper portion a^3.

Extending from the anvil a are the side members a^4 which unite with the handle a thus providing a rectangular opening a^5 into which the clamping and setting jaws are inserted as hereinafter explained. The inner sides of the members a^4 are grooved at a^6 and in alignment with said grooves are made the threaded apertures a^7. The forward end of the handle has a recess a^8 to enable the setting jaw to vibrate upon its pivot. The clamping jaw C is made solid at its lower end and bifurcated at its upper end, said bifurcation receiving the end of the setting jaw or hammer, said parts being connected by means of a pin or bolt c passed through the said jaw and members. The members have each a laterally projecting lug or stud c' which is intended to fit the grooves a^6 and be held therein by means of set screws c^2 passing through the apertures a^7 and above the lugs or studs. Before passing through the side members the screws are passed through plates c^3 the ends of which extend around the edges of the anvil jaw. The free end of the clamping jaw has a threaded aperture through which passes a regulating screw D, by means of which the device is regulated to clamp saws of varying thickness or the device regulated to increase or decrease the pressure on the saw. The end of the hammer is formed with an inclined nose b^3 which corresponds with the inclined face of the anvil. Now in operation the parts are assembled as shown and the screw adjusted to any desired point. The saw whose teeth are to be set at an angle is then passed between the anvil and clamping jaw until the tooth is opposite the inclined face of the anvil. The handles are then pressed together and this brings the inclined nose into contact with the tooth. The moment the nose touches the tooth the clamping jaw begins to operate and turns upon its pivots as a fulcrum inasmuch as the power is transmitted to the upper portion of the same through its connection with the setting jaw or hammer.

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

1. In a saw setting tool the combination with an anvil jaw of a clamping jaw pivoted thereon, and a setting jaw or hammer pivotally connected with the clamping jaw, substantially as shown and described.

2. In a saw setting tool the combination with an anvil jaw, having an opening therein, of a clamping jaw pivoted within said opening and a setting jaw or hammer pivoted to the clamping jaw above its pivotal point, substantially as shown and described.

3. In a saw setting tool the combination with the anvil jaw, of the clamping jaw having a regulating screw and the setting jaw or hammer pivoted to the opposite end of the clamping jaw, substantially as shown and described.

4. In a saw setting tool the combination with an anvil jaw having an inclined face, of the setting jaw or hammer having an inclined nose and the clamping jaw pivotally connected with the setting jaw and provided with a regulating screw, substantially as shown and described.

5. In a saw setting tool the combination with an anvil jaw, of a clamping jaw pivoted thereto, said clamping jaw being slotted and a setting jaw or hammer pivoted within the slot of the clamping jaw, and the regulating screw all arranged substantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN A. MINGER.

Witnesses:
JOHN HOOBER,
P. J. FIRSTENBERGEN.