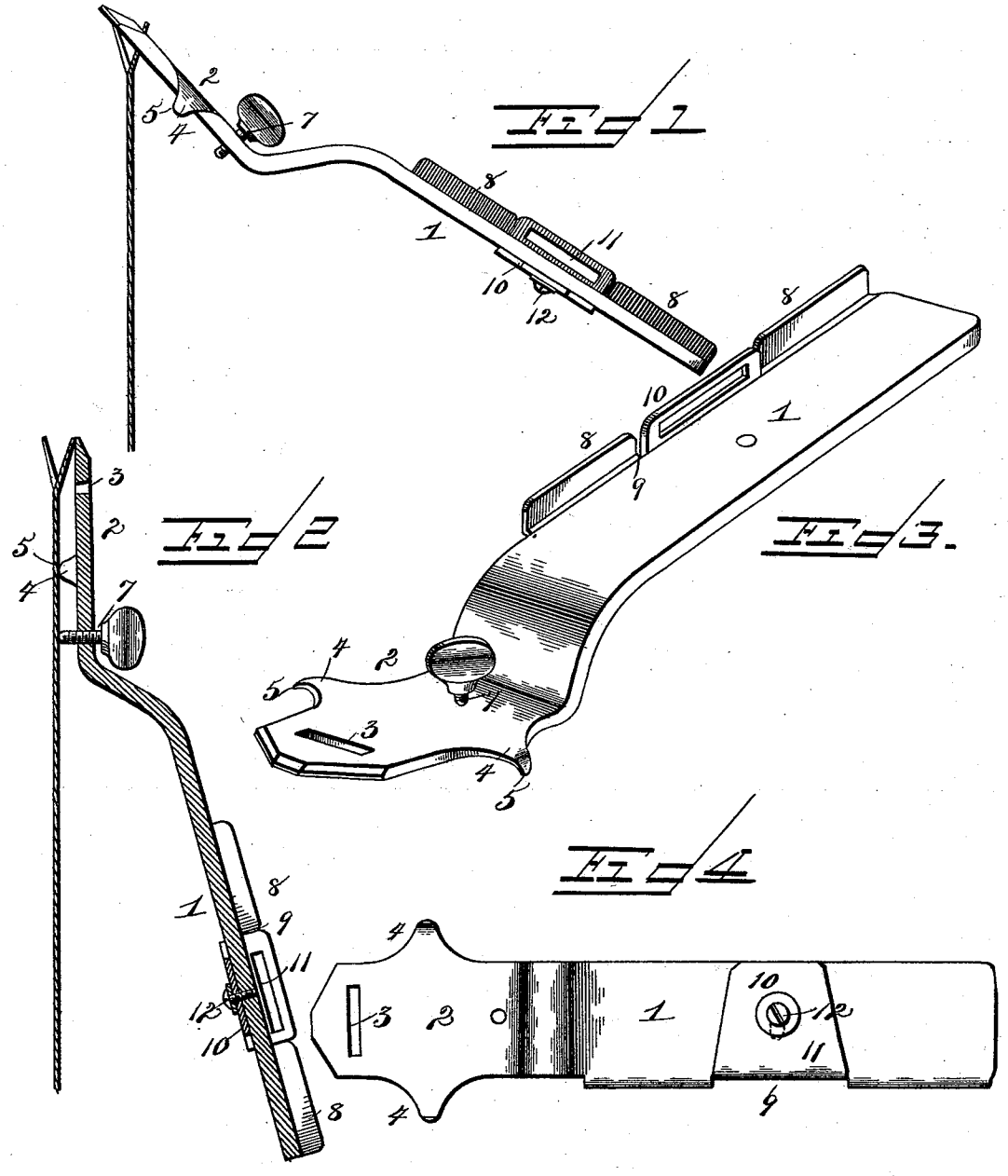
(No Model.)

E. E. RITCHIE.

SAW SET AND GAGE.

No. 505,925. Patented Oct. 3, 1893.



Inventor
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Witnesses
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UNITED STATES PATENT OFFICE.

ENOCH E. RITCHIE, OF HOWARD LAKE, MINNESOTA, ASSIGNOR OF ONE-HALF TO JAMES S. GRAVES, OF SAME PLACE.

SAW SET AND GAGE.

SPECIFICATION forming part of Letters Patent No. 505,925, dated October 3, 1893.

Application filed May 24, 1893. Serial No. 475,327. (No model.)

To all whom it may concern:

Be it known that I, ENOCH E. RITCHIE, a citizen of the United States, residing at Howard Lake, in the county of Wright and State of Minnesota, have invented a new and useful Saw Set and Gage, of which the following is a specification.

My invention relates to an improved saw-set and gage, the object in view being to provide a simple portable tool which combines the functions of a gage and a setting device, and which is adapted for effecting what is known as a spring-set, in which the teeth are given the necessary deflection without the use of a hammer and anvil, or equivalent device.

A further object of my invention is to provide means by which the set is gaged simultaneously with the operation of setting, thus facilitating the operation.

A further object of my invention is to provide an improved gage for use in cutting drag-teeth or clearers which are employed in cross-cut saws.

Further objects and advantages of my invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claims.

In the drawings—Figure 1 is a side view of a gage embodying my invention applied in the operative position to a saw-tooth in position for setting the same. Fig. 2 is a sectional view of the device applied in position to gage the set of a tooth. Fig. 3 is a perspective view of the tool. Fig. 4 is a rear view of the same.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

1 designates the body portion or handle of the device which is provided with an off-set head 2 which is approximately parallel with the body portion or handle, and is provided adjacent to its extremity with a transverse tooth receiving slot 3, the sides of which are slightly beveled, as shown clearly in Fig. 2, to enable the slot to be fitted over the saw tooth while in an inclined position.

4—4 represent lateral ears which are turned down at their extremities to form bearing points 5 which are adapted to bear upon the surface of the saw blade, adjacent to the tooth, during the operation of setting the latter.

7 is a gage screw which is threaded in the head near its inner end and projects beyond the rear surface of the same to regulate the interval between the rear end of the head and the surface of the saw to bring the front end of said head at the desired distance from the plane of the saw blade, such distance being adjusted by means of the gage screw according to the set which is desired.

The gage for regulating the cut of the drag-teeth comprises the usual ears or flanges 8, an intermediate notch 9, which are of the ordinary construction, and an adjustable slotted plate 10 which fits in said notch with its slot in position to receive the tooth to be cut. This plate is provided with a slotted ear, 11, which is engaged by a stationary set screw 12 whereby the distance of the surface of the gage plate below the plane of the ears or flanges 8 may be adjusted, as desired, to enable the drag-teeth to be cut the preferred length.

The operation of this portion of the device is similar to that employed in various other tools of this class and hence needs no detail description; the only point of improvement residing in the adjustability of the gage plate whereby the amount to be cut from the tooth may be regulated by the position of the plate.

It will be seen that the relative arrangement of the tooth-receiving slot 3, the lateral bearing points and the gage screw, is such as to enable a tooth to be bent or set and immediately gaged without changing the position of the hand upon the tool, and essentially by a continuous movement of said tool. For instance, the slot is engaged with a tooth and the free rear end of the handle is depressed to a point which is considered sufficient to produce the desired deflection of the tooth, the head of the device is raised slightly to disengage the slot from the tooth and the handle is carried down until the bearing points and gage screw bear upon the surface of the saw blade. In this position it can be readily seen at a glance if the tooth, which has been operated upon, is deflected sufficiently from the plane of the blade or not. If not, the operation may be repeated, and if

the deflection is too great the tooth may be bent back to bring it to its proper place. Thus the setting and gaging of the teeth may be accomplished alternately in rapid succession without necessitating any change of position of the tool in the hand of the operator.

Having described my invention, what I claim is—

1. A saw set and gage having a flat handle or body portion, an off-set head arranged in a plane approximately parallel with the body portion or handle and provided at its front end with a transversely disposed tooth-receiving slot a gage screw threaded in a perforation at the rear end of the head and projecting beyond the rear surface thereof, and lateral integral ears arranged midway between said slot and gage screw and having downturned bearing-points substantially as specified.

2. As an improved article of manufacture, a saw set and gage comprising a flat handle or body portion, provided with integral flanges 8 and an intermediate notch 9, an adjustable gage plate fitting in said notch and provided with a slotted ear and set screw, a head integral with and off-set from said handle or body portion and provided at its free end with a tooth-receiving slot a gage screw threaded in a perforation in said head, and downturned bearing points arranged at the terminals of a transverse line interposed between the slot and the gage-screw substantially as specified.

3. As an improved article of manufacture, a saw set and gage comprising a handle or body-portion provided with a flat head having a transverse slot 3, a gage screw 7, and opposite lateral bearing-points 5, arranged upon a transverse line lying between the said slot and gage-screw, substantially as specified.

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

ENOCH E. RITCHIE.

Witnesses:
F. E. LATHUM,
H. W. SARVER.