No. 662,453. Patented Nov. 27, 1900.

W. MATHEWS.

SAW SET.

(Application filed Aug. 16, 1900.)

(No Model.)

Fig. 1.

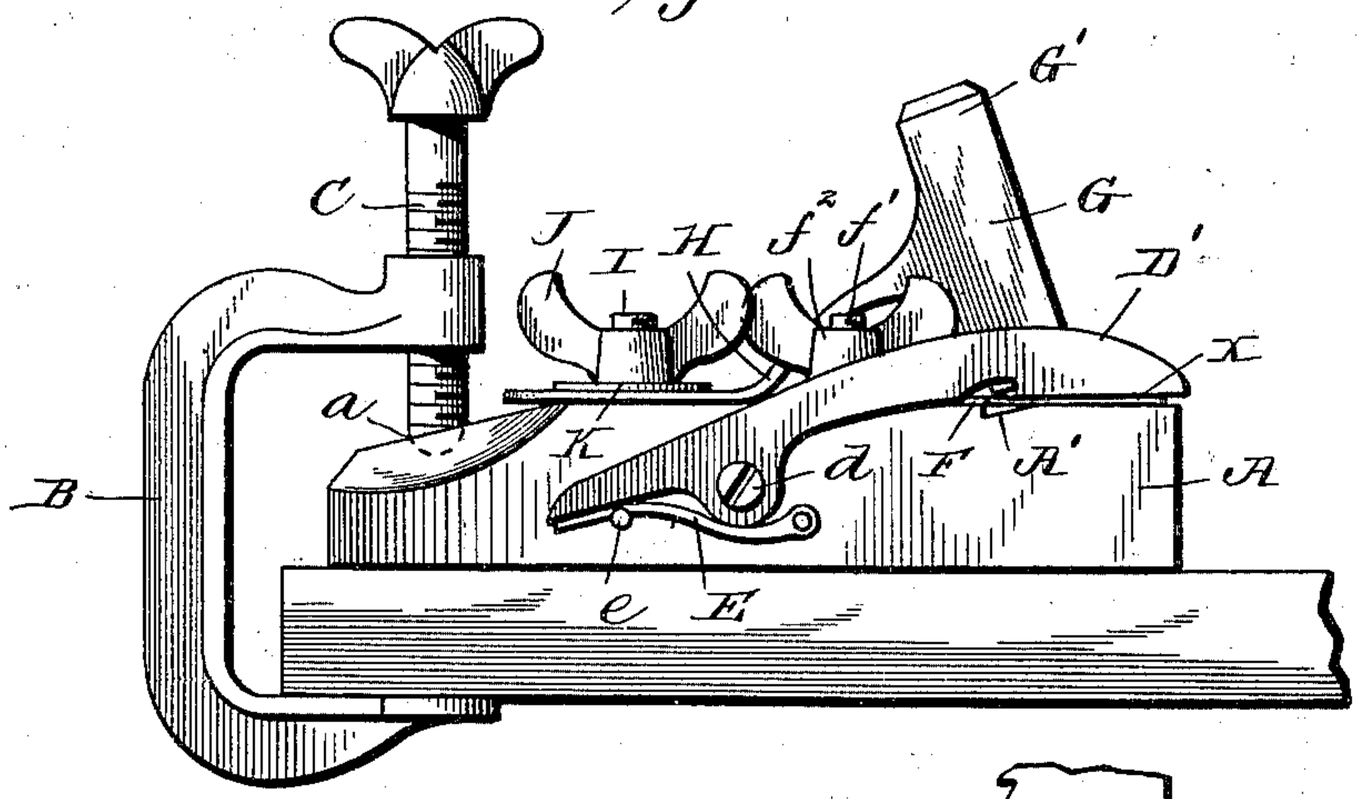


Fig. 2.

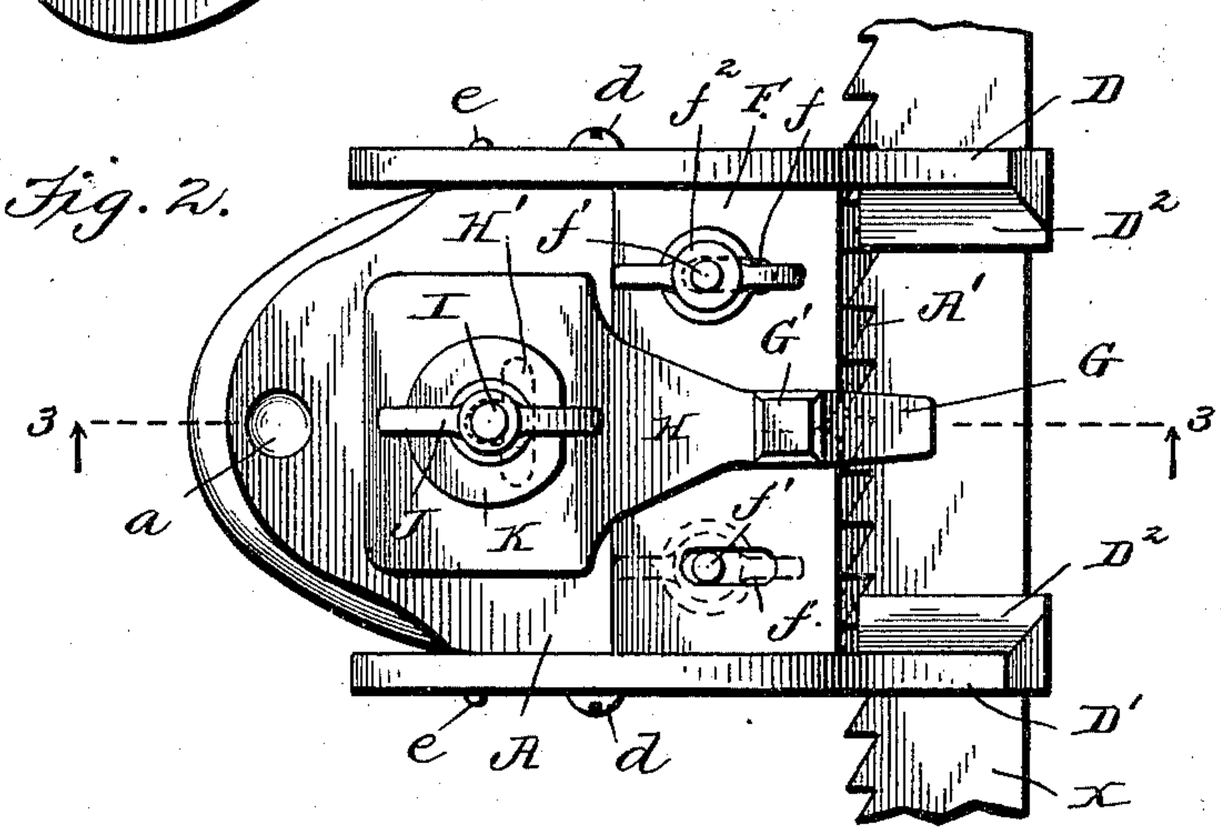
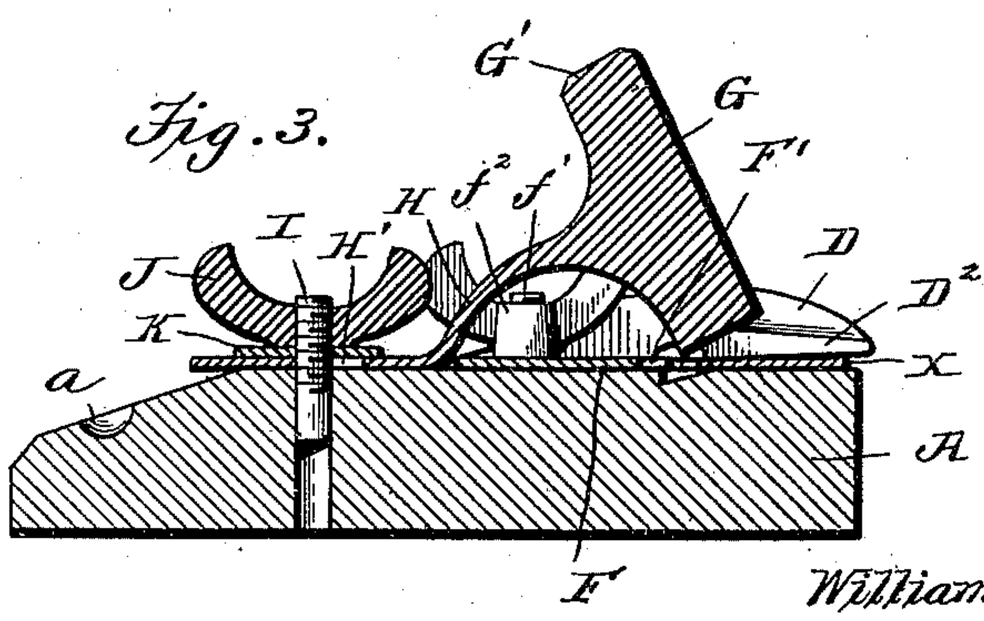


Fig. 3.



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WILLIAM MATHEWS, OF CONNEAUT, OHIO.

SAW-SET.

SPECIFICATION forming part of Letters Patent No. 662,453, dated November 27, 1900.

Application filed August 16, 1900. Serial No. 27,108. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM MATHEWS, a citizen of the United States, residing at Conneaut, in the county of Ashtabula and State of Ohio, have invented certain new and useful Improvements in Saw-Sets; and I do 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to a new and improved saw-set, and is embodied in the novel parts, arrangement, and combinations of parts hereinafter described, and particularly set forth in the claims.

The objects of the invention are to provide a simple and efficient device for setting saw-teeth in which the saw can be readily engaged with and disengaged from the holding means and adjusted to the setting-tool, to provide a simple adjustable gage which will permit of saws having different-sized teeth being properly adjusted to obtain the proper set, to provide means for insuring always the same exact set for the teeth, and to provide the device with spring-holding arms for the saw.

A further object of the invention is to provide a generally improved and simplified device which can be readily applied to the work-bench and which will be efficient in all respects for the purpose for which the invention is intended.

With such and other objects in view the invention is embodied in the novel parts, arrangement, and combination of parts hereinafter described and shown in the drawings; but it is to be understood that I do not limit my invention to the construction which for the sake of illustration I have specifically described and illustrated in the drawings.

In the drawings, Figure 1 is an elevation of a saw-set embodying my invention, showing the same applied to a work-bench or the like. Fig. 2 is a top plan view of the saw-set, the means for securing the same to the bench being removed. Fig. 3 is a longitudinal vertical sectional view on the line 3 3 of Fig. 2.

Referring to the drawings, wherein similar reference characters relate to like parts throughout the several views, A indicates a base and saw-supporting plate or the like conveniently made of steel. Conveniently the plate A is adapted to be secured to a bench or the like by means of a suitable clamp, such as the U-clamp B shown in the drawings, one leg of said clamp being adapted to engage under the edge of the work-bench and the other leg of the clamp carrying a set-screw C, adapted to engage with the plate A, preferably in a socket *a* therein, to bind the same tightly against the bench and retain the same in proper position thereon. The plate A is provided conveniently near one end with a channel or groove A′, having an inclined face, the inclination being that desired to be given to the saw-teeth in setting the same.

The saw, which is shown at X, is intended to be laid flat upon the plate A, with its teeth over the groove A′, and for the purpose of holding the saw rigidly on the plate and permitting the adjustment of the same I provide the plate with one or more, preferably two, spring-pressed holding-jaws D D′. The jaws D and D′ have shanks, which extend beside the sides of the plate A and are pivoted thereto, as by means of pivot-screws *d*. A spring E is provided for each jaw, and, as will be seen in the drawings, the springs E are secured to the plate A beneath the pivots *d* and have rearwardly-extending free ends engaging the rear ends of the shanks of the jaws D D′ and acting to move the rear ends thereof up and the forward ends down to clamp the saw on the plate A. I preferably provide supporting lugs or bolts *e* on the sides of the plate A beneath the springs E to limit the movement of the same and enable a greater exertion of power on the jaws D and D′. The jaws D D′ at their forward ends are provided with lateral enlargements D^2, overlying the base-plate A.

Lying on the upper side of the plate A is a gage for the saw, (indicated at F.) This gage is adapted to be secured with its forward edge over or adjacent the groove A′ in the base-plate and to engage the teeth of the saw held on the plate by the holding-jaws. The gage is adjustable toward and from the groove for the purpose of limiting the inward movement of the saw and properly gaging the extent of the set. For the purpose of adjust-

ing and holding the gage I have shown the same provided with slots *f*, through which pass screw-threaded bolts *f'*, on which are thumb-nuts f^2, adapted to be screwed down tightly against the gage F to retain the same in the position to which it is adjusted. The plate F at its forward edge over the groove A' is provided with a notch F' for the passage of the setting tool or hammer, hereinafter mentioned.

G indicates a setting tool or hammer, the lower end of which is positioned over the notch F' in the gage and the groove A' in the base-plate and the upper end of which (indicated at G') provides a striking lug or end for a hammer or the like in the hands of the operator using the set. The tool or hammer G is provided with a rearwardly-extending down-bent spring-shank H, which is secured to the base-plate A in rear of the gage in any convenient or desired manner. Preferably the lower end of the shank is flattened and is provided with a slot H', through which passes an upwardly-extending screw-threaded bolt I, on which is screwed a thumb-nut J, a washer K being preferably interposed between the thumb-nut and the shank. With this construction it will be readily understood that the hammer or tool G can be readily adjusted to register with the notch in the gage and the groove in the plate A.

It is believed the operation or manner of use of the device will be readily understood.

The saw is placed on the forward end of the plate A beneath the spring holding-jaws D D', which for the purpose of ready operation extend beyond the end of the base-plate. The gage E if not suitably adjusted for the saw to be operated upon is then adjusted to give the proper depth of set to the teeth. The operator then by simply sliding the saw beneath the spring holding-jaws, which can be done by bringing sufficient pressure to bear on the saw, brings one of the teeth of the saw beneath the lower end of the setting tool or hammer, when by a blow with a hammer or the like on the tool G the tooth is bent or set downwardly, the extent of the lateral displacement or set of the tooth being determined by the inclination of the face of the groove A' and the adjustment of the gage E, but the lateral displacement of all the teeth always being the same.

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

1. In a saw-set, the combination of a base-plate having in its upper face a groove A' and said base-plate affording on one side of said groove a support for the saw, a gage-plate adjustably secured on the base-plate on the opposite side of said groove, spring-pressed holding-jaws secured to said base-plate and adapted to hold the saw thereon, and a setting tool or hammer secured to said base-plate between said holding-jaws, substantially as described.

2. In a saw-set, the combination of a base-plate providing a support for a saw, clamping-jaws pivoted to said base-plate on the sides thereof, said jaws having lateral enlarged holding portions adapted to overhang the base-plate, springs acting to move the jaws toward the base-plate and a setting tool or hammer secured to the base-plate between the jaws, substantially as described.

3. In a saw-set, the combination of a base-plate, provided with a groove A' in its upper face said upper face on one side of said groove forming a support for a saw, a gage-plate adjustably secured to the upper face of said base-plate on the other side of said groove, holding-jaws for the saw secured to said base-plate, a setting tool or hammer provided with a shank, and means for adjustably securing said shank to the base-plate independently of said gage, and on the side of the gage opposite said groove, substantially as described.

4. In a saw-set, the combination of a base-plate A having a groove A' in the upper face thereof, the upper face on one side of said groove affording a support for a saw, holding-jaws D, D', pivoted to the sides of said base-plate and having inwardly-projecting lateral enlargements D^2, springs E for moving said jaws to clamp the saw, a gage-plate F provided with slots and located on the base-plate on the side of said groove opposite to the saw-supporting portion, screws passing through said slots in the gage-plate, set-nuts working on said screws, a setting tool or hammer G having a spring-shank, a screw I secured to the base-plate and passing through a slot in said shank, said slot being enlarged to permit the lateral and longitudinal adjustment of the setting-tool, and a nut working on said screw for clamping the setting-tool in adjusted positions, substantially as described.

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

WILLIAM MATHEWS.

Witnesses:

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D. C. KELLEY.