No. 780,431. PATENTED JAN. 17, 1905.

F. LENTZ.

SAW SET.

APPLICATION FILED APR. 4, 1904.

2 SHEETS—SHEET 1.

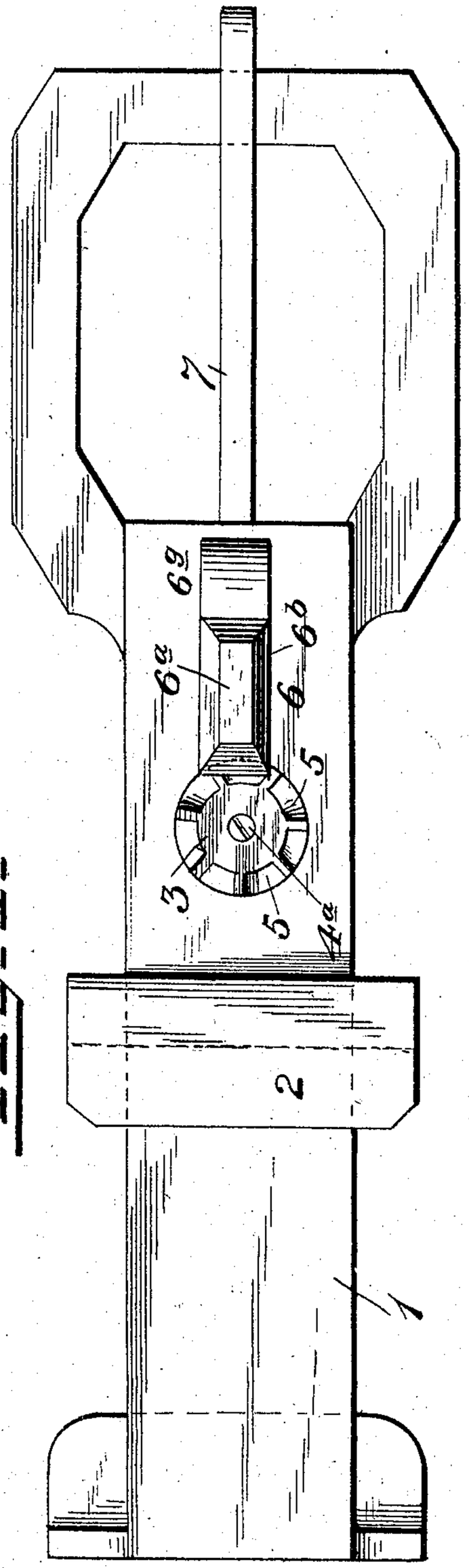

FIG. 1.

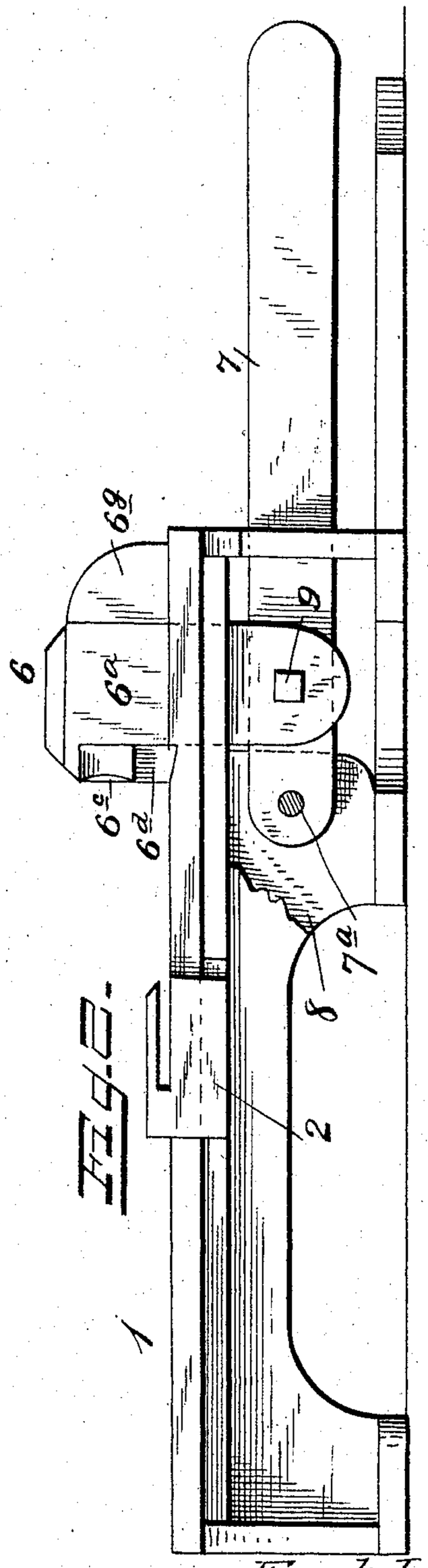

FIG. 2.

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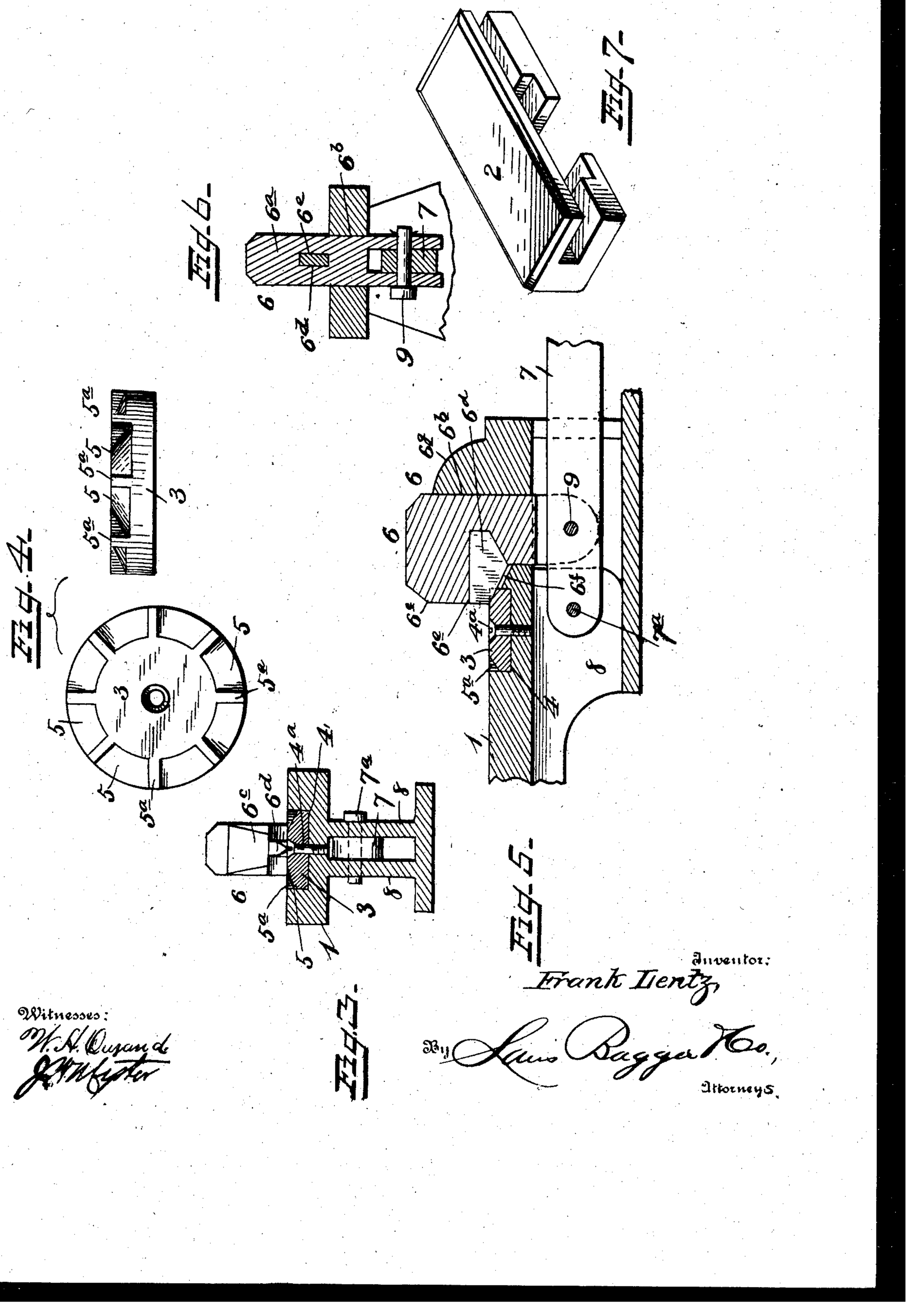
2 SHEETS—SHEET 2.



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No. 780,431. Patented January 17, 1905.

UNITED STATES PATENT OFFICE.

FRANK LENTZ, OF EDISON, OHIO.

SAW-SET.

SPECIFICATION forming part of Letters Patent No. 780,431, dated January 17, 1905.

Application filed April 4, 1904. Serial No. 201,529.

To all whom it may concern:

Be it known that I, FRANK LENTZ, a citizen of the United States, residing at Edison, in the county of Morrow and State of Ohio, have invented new and useful Improvements in Saw-Sets, of which the following is a specification.

My invention relates to improvements in saw-sets.

It has for its object to provide for readily and effectively setting crosscut, hand, straight, and circular rip-saws or any other kind of fine-toothed saw and to carry into effect the same in a simple, convenient, and expeditious manner.

Said invention consists of the combination and arrangement of parts, including certain structural features thereof, substantially as hereinafter more fully disclosed, and particularly pointed out by the claim.

In the accompanying drawings, illustrating the preferred embodiment of my invention, Figure 1 is a broken plan view thereof. Fig. 2 is a like side view of the same. Fig. 3 is a transverse vertical section produced through the rotary anvil. Fig. 4 is a detached view of said anvil, disclosing the differential beveled surface thereof. Fig. 5 is a broken longitudinal section taken through the hammer or punch. Fig. 6 is a transverse vertical section produced through said hammer on the line of the pivotal connection therebetween and its actuating-lever. Fig. 7 is a detached view of the guide or slide.

In the carrying out of my invention I provide a suitable support or bench 1, adapted to permit the arrangement thereon of a sliding guide 2 to aid the holding and guiding of the saw, as in performing the setting operation, as presently seen.

The anvil 3, preferably annular or disk-like in general construction or outline, is mounted to revolve in a corresponding recess or depression 4 in the flat upper surface of the bench 1 upon an axial stud or pivot 4^a, which may be a screw engaging centrally the bottom surface of said recess, but passing through an aperture of said anvil, so that the latter is free to revolve thereon. Said anvil has produced in its upper surface along its outer edge a circular arrangement or plurality of beveled surfaces 5, said surfaces having different angles of declination and suitably partitioned off, as at 5^a, from each other, the partitions 5^a resulting from the thus beveling of said surface of the anvil. The purpose of thus providing a differential beveled surface is to enable the setting of the saw-teeth at different or greater or less angles as required for the teeth of different kinds of saws, as will be readily appreciated by those familiar with this art.

The hammer or punch 6 consists of a head 6^a, preferably rectangular in general outline and arranged to have vertical movement through an opening 6^b in the upper surface of the bench 1 adjacent to the anvil 3, with its upper forward edge offset, as at 6^c, so as to overhang the latter. Said head also carries or is equipped with a removable swage 6^d, preferably oblong, generally with its lower edge inclined from a central point in opposite directions, the resulting inclinations being rearward and upward and forward and upward, respectively, while the extreme lower forward edge of said swage is somewhat tapering or pointed as the desirable contour for and which constitutes its effective edge as in acting upon and performing the setting of the saw-teeth. Said swage has its inner end let into and seated in a socket 6^e in the hammer-head 6^a, with its outer upper edge bearing upon the under side of the offset 6^c of said head and its effective or engaging edge presented to or facing the anvil 3, the upper surface of the bench or support 1 being recessed or cut away and sloped downward and rearward, as at 6^f, to conform to and permit the requisite descent with the hammer-head of said swage to effectively engage the saw-tooth and bend it down upon the coincident or opposite beveled surface of the anvil, as will be readily understood. The hammer-head 6^a, suitably guided in position as against movement in one direction by the upstanding portion or guide 6^g of the bench 1, is actuated by the hand-lever 7, connected to a pivot stud or pin 7^a, passed through one end of said lever and through apertures in parallel extensions 8 8 of the underneath longitudinal bracing member of the supporting-legs

of the bench 1, said lever being pivoted or connected between lower end extensions of said hammer-head by a pin or pivot 9, inserted through coincident apertures in said lever or lower end extensions. With the hand-lever 7 elevated, accordingly affecting the hammer-head, and with the back of, say, a handsaw placed in the guide 2 and its blade resting upon the anvil 3, so that the initial tooth for setting is just above the required beveled surface 5 of said anvil, the latter having been adjusted or moved to effect such juxtaposition of parts, said lever is now exerted so as to cause said hammer-head to descend with sufficient force to render the swage as it is thus brought into contact with the tooth effective to impart the requisite set thereto. This operation of course is repeated for each alternate tooth of the saw, which is moved to accordingly adjust the teeth, the saw after such operation being reversed, side for side, to treat the other teeth in like manner to complete the setting of all the teeth.

Latitude is allowed as to details herein, as they may be changed as circumstances suggest without departing from the spirit of my invention and the latter still be protected.

I claim—

A device of the character described, employing a support having arranged therein an axially-movable anvil provided with peripherally-beveled upper edges, said support having also an inclined recess contiguous to the periphery of said anvil, and with which any of said beveled edges may be caused to register, a hammer having a swage or die provided with a lower forward effective edge opposed to the upper peripheral beveled edges of said anvil and said inclined recess of said support, and an actuating-lever for said hammer, connected to a downward extension thereof and pivoted to said support, forward of said swage or die, providing, when said lever is actuated, for the direct right-lined movement of said hammer and said swage or die with relation to said anvil and support.

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

FRANK LENTZ.

Witnesses:
S. P. GAGE,
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