No. 780,512. PATENTED JAN. 24, 1905.

W. LEWIS.

SAW TOOTH GAGE.

APPLICATION FILED MAY 25, 1904.

FIG. 1.

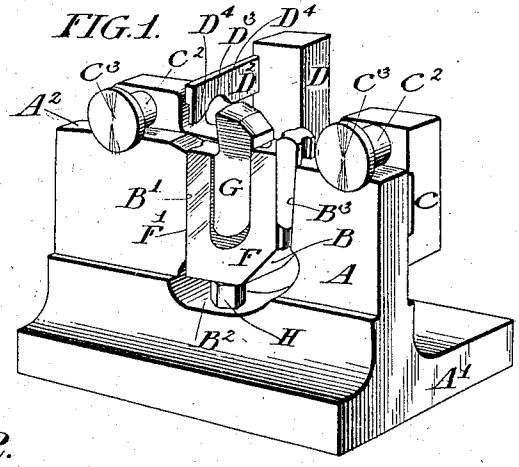


FIG. 2.

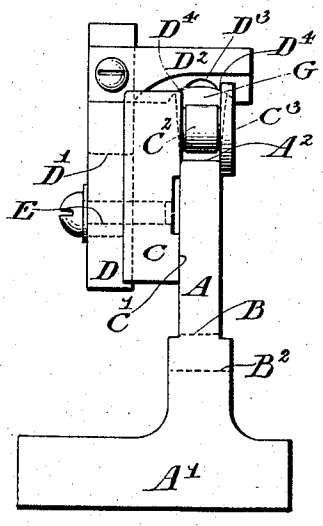


FIG. 3.

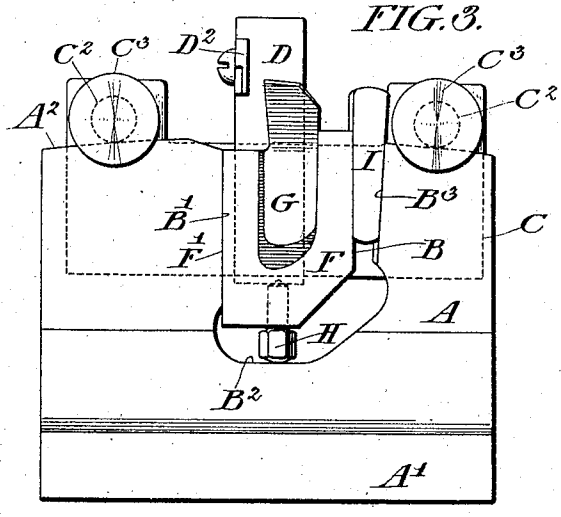


FIG. 4.

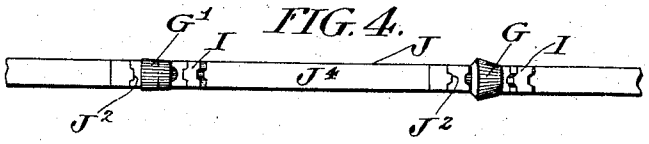
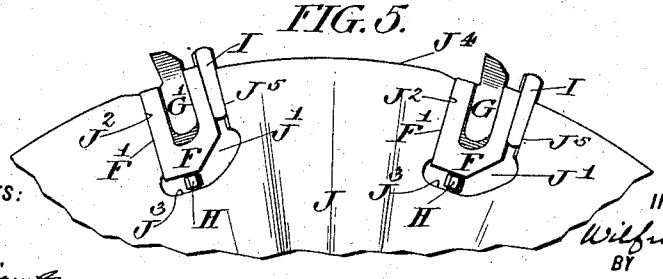


FIG. 5.



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PHOTO-LITHOGRAPHED BY SACKETT & WILHELMS LITHO. & PTG. CO. NEW YORK.

No. 780,512. Patented January 24, 1905.

UNITED STATES PATENT OFFICE.

WILFRED LEWIS, OF PHILADELPHIA, PENNSYLVANIA.

SAW-TOOTH GAGE.

SPECIFICATION forming part of Letters Patent No. 780,512, dated January 24, 1905.

Application filed May 25, 1904. Serial No. 209,620.

To all whom it may concern:

Be it known that I, WILFRED LEWIS, a citizen of the United States of America, residing in the city and county of Philadelphia, in the State of Pennsylvania, have invented a certain new and useful Improvement in Saw-Tooth Gages, of which the following is a true and exact description, reference being had to the accompanying drawings, which form a part thereof.

My invention relates to a saw-tooth-gaging device intended for use in connection with detachable saw-teeth, which teeth are provided with detached and adjustable bottom abutments adapted when the teeth are assembled in a suitable saw-blade to fix and determine the extent to which the teeth shall project beyond the periphery of the blade. Such teeth are also new and form the subject of another application filed contemporaneously with the present one.

The object of my invention is to provide a gaging device especially adapted for use in connection with such saw-teeth and to which the adjustable abutment may be nicely adjusted and regulated, so that the teeth can be inserted in the saw-blade and will all occupy proper relative positions therein without requiring any adjustment after or during insertion.

The nature of my new device will be best understood as described in connection with the drawings, in which it is illustrated, and in which—

Figure 1 is a perspective view showing the gaging device and a saw-tooth in place therein for adjustment. Fig. 2 is an end view of the same device, and Fig. 3 a side elevation thereof. Fig. 4 is an edge view of a portion of a saw-blade with teeth inserted, and Fig. 5 a side elevation of the same portion of the saw-blade.

A indicates the tool-holding member of the gage, which consists of an upwardly-extending plate supported on a firm base A′ and provided with a cavity B, which by preference conforms to the walls against which the saw-tooth abuts and against which the clamping device abuts and at the bottom against which the adjustable top abuts with the tooth-holding cavities formed in the saw-blade. It is essential, however, that the wall against which the saw-tooth abuts and the bottom should be alined and disposed in exact conformity with the similar parts in the cavities in the saw-blade—that is to say, the wall B′ and the cavity-bottom B^2 correspond exactly with the wall J^2 and the bottom J^3 of the tooth-holding cavities J′ in the saw-blade J. As shown, the wall B^3 of the gage-holder also corresponds with the wall J^5 of the saw-blade cavities. By preference also I form the top A^2 of the gage-holding member to correspond with the periphery J^4 of the saw-blade.

C is the base of the sliding member of the gage, formed with abutments C′, which rest against the side of the holder A, and provided with supports C^2, preferably in the form of rollers, which rest upon the top edge A^2 of the holder and are held in place by annular flanges C^3.

D is an adjustable support, made adjustable by a slot D′ and held in place on the member C by a clamping-screw, as indicated at E. The support D has extending from its top the arm D^2, which extends over the tooth-holding portion of the gage and over the tooth when in place therein and has formed with or attached to it the gaging edge, which, as shown, consists of a portion D^3, adapted to gage the narrower teeth of the saw, while lateral portions D^4 D^4 are adapted to gage the wider teeth of the saw.

J indicates a portion of the saw-blade having formed in it the cavities J′ J′, and F indicates a U-shaped holder in which the cutting-tool G is secured, preferably by the means described in the United States patent to Taylor and Newbold, No. 709,526, of August 29, 1902. In my present application I refer to the holder and cutting-tool as a "saw-tooth," as they constitute as a whole the removable teeth of the saw-blade.

I indicates the wedge used to clamp the saw-tooth in the blade of the saw and also conveniently used as a means for clamping the saw-tooth in the holding-cavity of the gage.

In operation the saw-tooth is inserted in the cavity B of the tooth-holder A, and one edge of the tooth F′ is by any convenient

means—such, for instance, as the wedge I—forced into close contact with the wall B′ of the gage-cavity, while the adjustable stop H, which screws into the bottom of the holder F, rests upon the bottom B^2 of the cavity. The movable member of the gage is from time to time shifted and the adjustable stop H adjusted until the cutting edge of the tool conforms exactly with the gage-bar D^2, when the adjustment is complete, and the teeth thus adjusted can be inserted into the tooth-cavities J′ of the saw-blade and clamped in place therein without requiring any further adjustment and with great saving of labor and the running-time of the saw.

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

1. A gage for adjusting saw-teeth with adjustable abutments for insertion into saw-blades, having in combination a tooth-holder formed with a tool-receiving chamber, one wall and the bottom of which, are disposed substantially like the corresponding walls and the bottoms of the tool-receiving chambers of the saw-blade, means for holding an inserted tooth in contact with the said wall of the holder-cavity, and a gage member supported on the tool-holder and movable over the saw-tooth supported therein.

2. A gage for adjusting saw-teeth with adjustable abutments for insertion into saw-blades, having in combination a tooth-holder formed with a tool-receiving chamber, one wall and the bottom of which, are disposed substantially like the corresponding walls and the bottoms of the tool-receiving chambers of the saw-blade, means for holding an inserted tooth in contact with the said wall of the holder-cavity, a sliding member guided on the holder and a gaging edge secured to said sliding member and movable over the saw-tooth supported in the holder.

WILFRED LEWIS.

Witnesses:
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D. STEWART.