July 12, 1938. C. R. EDWARDS 2,123,565

RAKER GAUGE

Filed Dec. 9, 1936 2 Sheets-Sheet 1

Fig. 1.

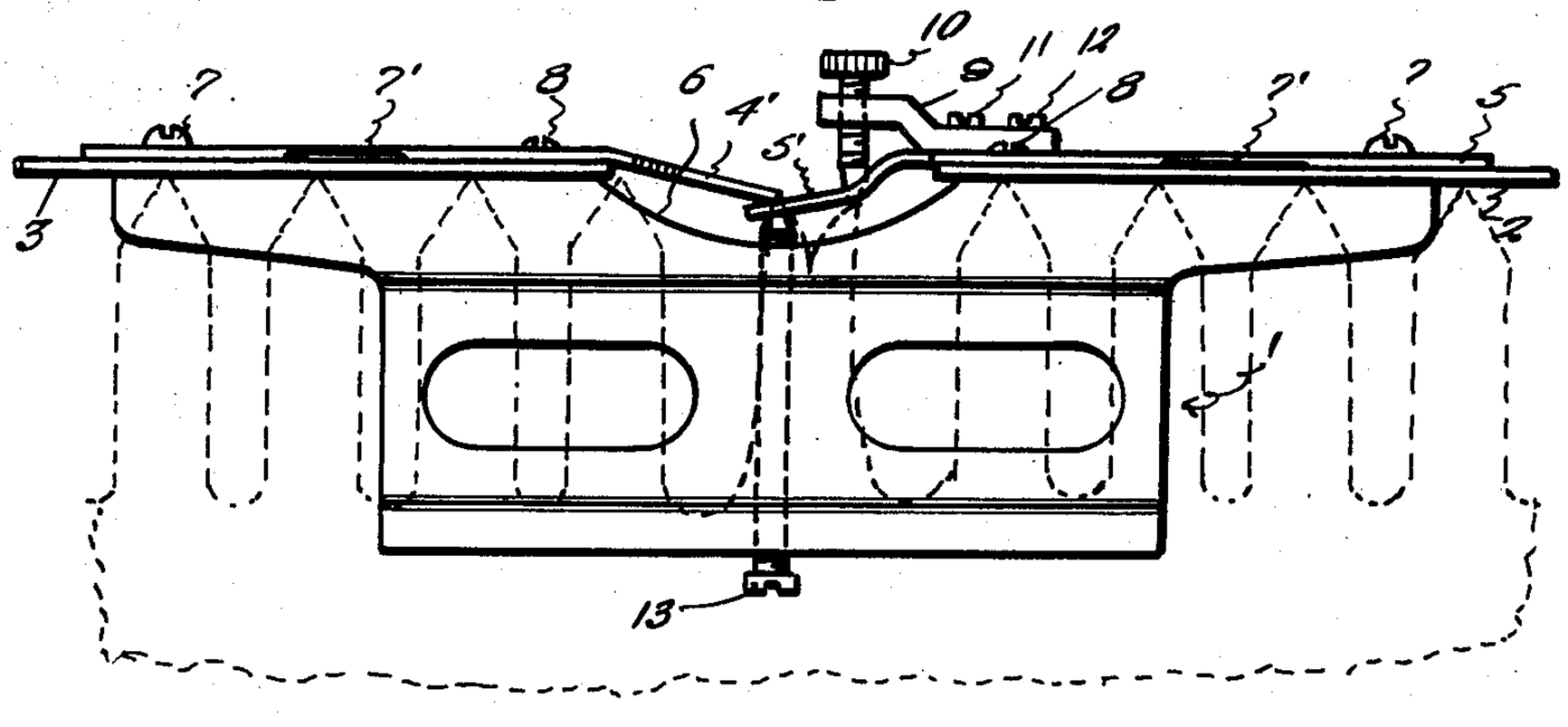
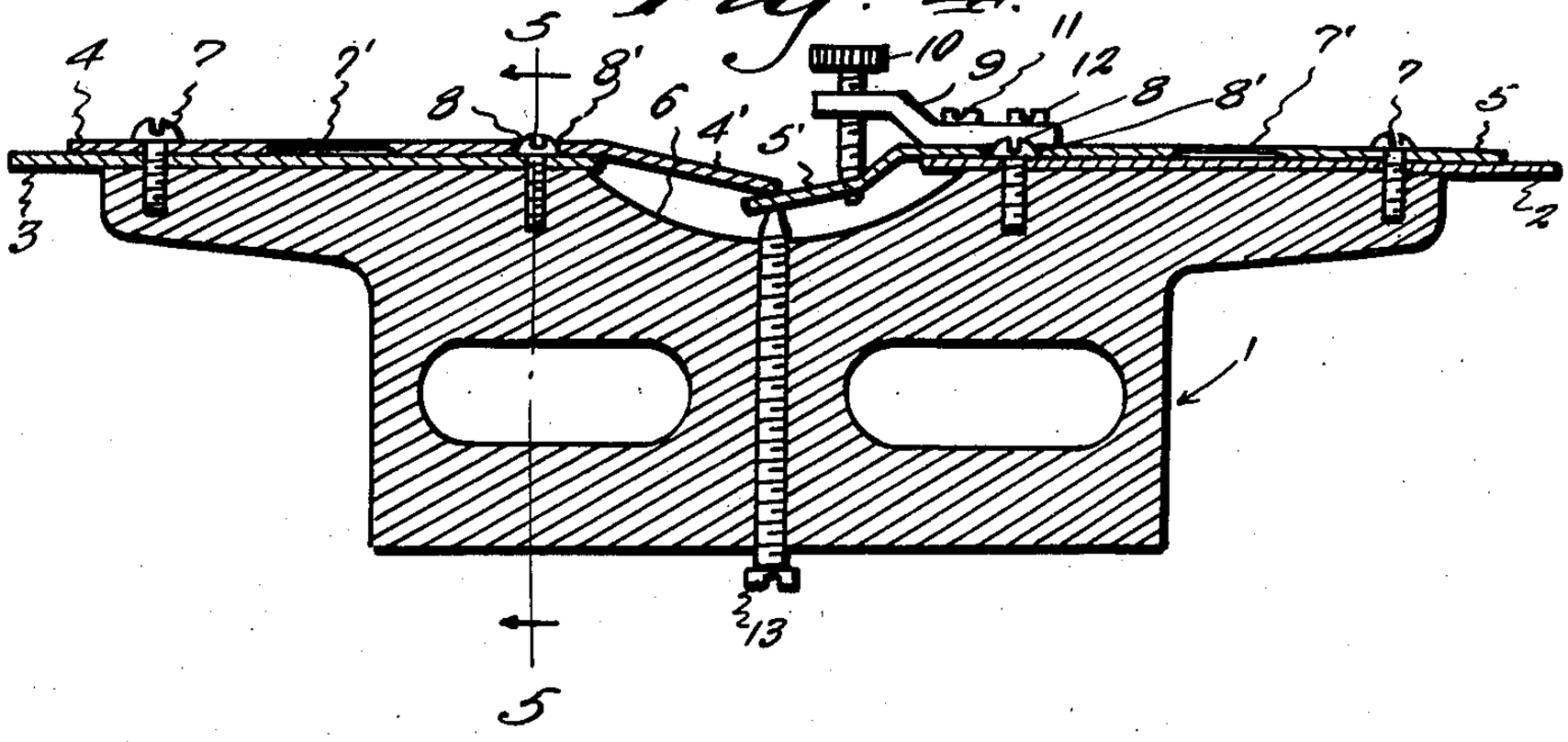


Fig. 4.



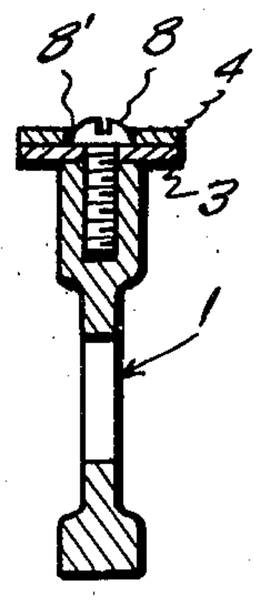


Fig. 5.

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July 12, 1938. C. R. EDWARDS 2,123,565

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Filed Dec. 9, 1936 2 Sheets-Sheet 2

Fig. 2.

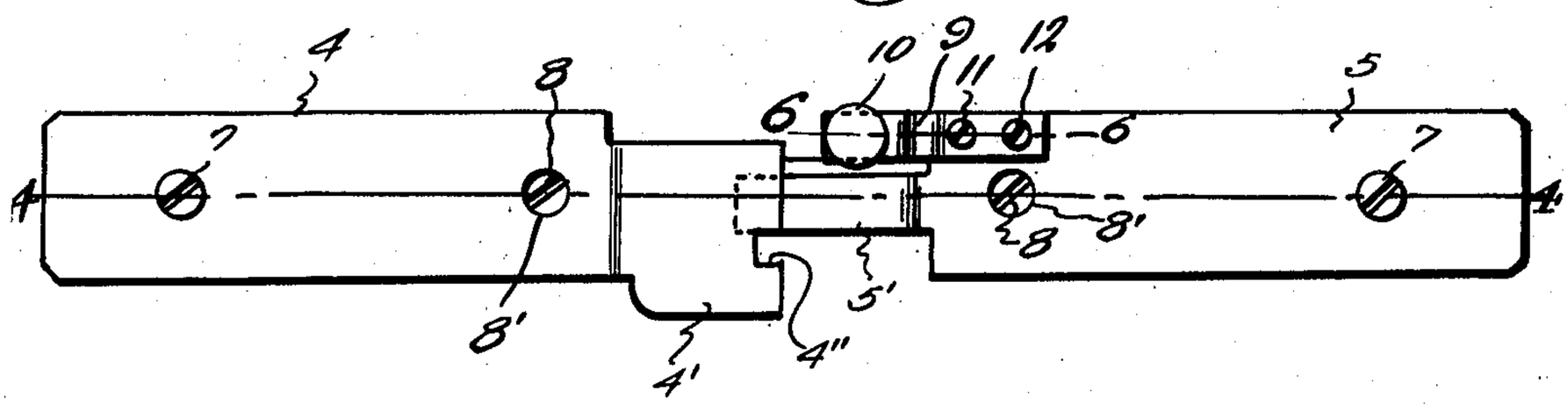


Fig. 3.

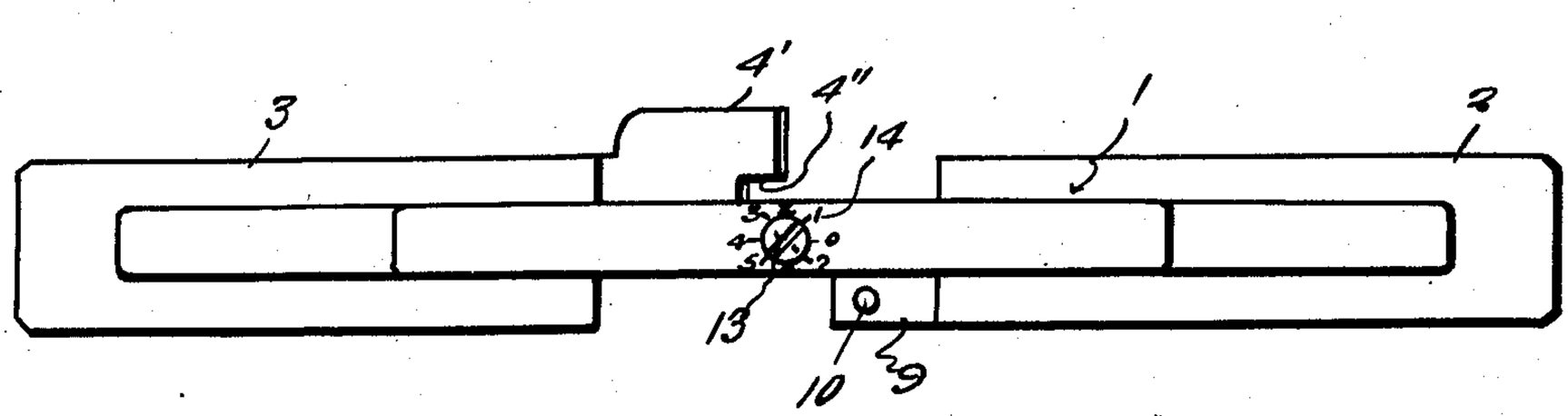


Fig. 4.

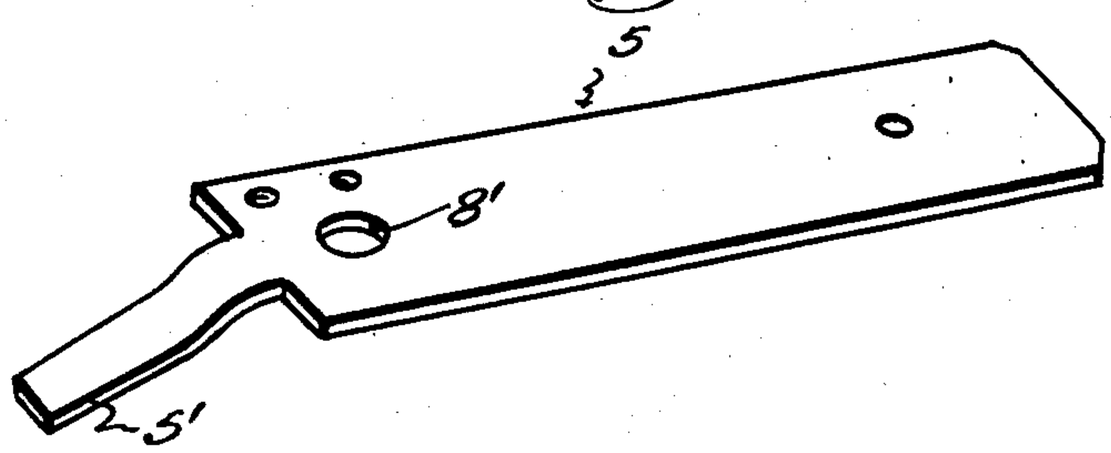
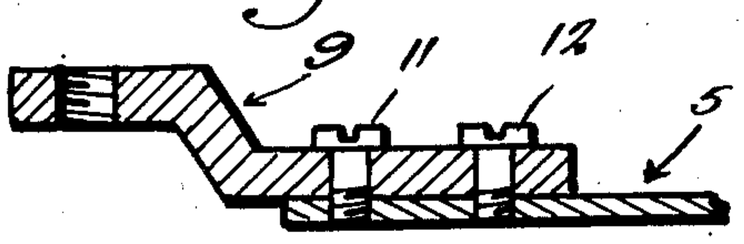


Fig. 6.



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2,123,565

UNITED STATES PATENT OFFICE

2,123,565

RAKER GAUGE

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Application December 9, 1936, Serial No. 115,027

2 Claims. (Cl. 33—202)

My invention relates generally to improvements in raker gauges, and an important object of the invention is to provide a gauge of this type which simplifies saw filing and brings thereto a greater degree of accuracy and speed, to such an extent that any inexperienced saw filer can perfectly file a saw.

Another important object of my invention is to provide a gauge of the character indicated which is adjustable in such a way as to enable filing the saw for special use with different wood or timber, or to suit different workers.

Other important objects of my invention will be apparent from a reading of the following description taken in connection with the drawings, wherein for purposes of illustration I have shown a preferred embodiment of my invention.

In the drawings:—

Figure 1 is a general side elevational view of the embodiment.

Figure 2 is a top plan view of Figure 1.

Figure 3 is a bottom plan view of Figure 2.

Figure 4 is a longitudinal sectional view taken through Figure 2 approximately on the line 4—4.

Figure 5 is a transverse vertical sectional view taken through Figure 4 approximately on the line 5—5 and looking toward the left in the direction of the arrows.

Figure 6 is an enlarged longitudinal sectional view taken through Figure 2 approximately on the line 6—6.

Figure 7 is a perspective view of one of the bearing plates.

Referring in detail to the drawings, the numeral 1 generally designates the frame of the gauge which may be of any approved pattern and be provided with bearing plates 2 and 3, which form a straight edge to rest on the saw teeth. Secured to the upper face of the bearing plate 3 is a plate 4 of resilient metal, the inner end of which projects into a gap 6 which is formed in the frame. The plate 4 is slotted as shown at 4'' along one side of the frame 1 and the width of the slot is sufficient to permit the raker tooth of the saw to pass therethrough, said slot 4'' being a filing slot for the raker tooth. The inner end of this plate has an inclined surface 4' to give clearance to the points of the raker tooth when in place for gauging the raker tooth.

The plate 4 is secured to the frame with screws 7 and 8 which pass through the plate 3 and secured to the upper face of the plate 2 is a plate 5 also of resilient metal the inner end of which projects into the gap 6 formed in the frame. This plate has a curved tip 5' which hooks under the tip end of the filing plate 4. The plate 5 has a gauging pin arch 9 in which is screwed a gauging pin 10 which is screwed through the inner end of the arch 9. The arch is held in place on the plate 5 with screws 11 and 12. The gauging pin 10 is located on the side of the frame 1 opposite to that on which the filing slot 4'' is disposed and for engagement with the teeth of a saw when the adjacent side of the plate 4 is disposed flat against the saw blade.

An adjusting screw 13 is threaded through the frame 1 from the bottom of the latter to bear against the tip 5' and this screw has a head having circumferentially spaced symbols thereon, which cooperate with and are registrable with a zero and the circumferentially spaced numerals 1 to 9 on the dial 14 on the bottom of the frame, which dial surrounds the head of the adjusting screw.

The adjusting screw is provided with a thread which runs 32 threads to the inch. The arrangement is such that one completed revolution of said screw moves the filing slot one thirty-second of an inch.

When it is desired to swage the raker teeth, the adjusting screw 13 is turned to adjust the tip 5', and hence the filing slot 4'', in accordance with the length of the raker tooth desired and by registering the zero on the head of said screw with the appropriate number on the dial 14. The gauging pin 10 is set a little higher than the setting of the filing slot 4''. The gauge is then positioned on the saw blade with the plates 2 and 3 resting on the saw teeth, the filing slot side of the plate 4 flat against the saw blade and a selected raker tooth extending through said slot, to thereby determine the depth to which the particular raker tooth concerned is to be swaged down. The gauge is then removed and the tooth swaged by hammer blows, in the usual manner, and gauged by the screw 10 by reversing the gauge to locate said screw 10 over said tooth. When the tooth has been swaged to a depth sufficient for the screw 10 to just clear the same, the gauge is applied in the first described position with the swaged tooth extending through filing slot 4''. Due to the gauging by the pin 10 the tooth will extend through said slot 4'' for dressing off by filing.

Advantages of my improvement raker gauge will be apparent when it is considered that where the filing is being done for eight or ten men, several of the men will want rakers of different lengths. With the invention at hand, it is possible to adjust so as to gauge a raker for any desired

length quickly and accurately, so that the filing may be started and completed within a minimum space of time. Another advantage of the present invention is that it enables putting a lead in cross cut saws. For instance, if swaging with an adjustment of the dial to (3), the procedure is to find the center raker on the saw, and then swage from the center raker to the end, utilizing the filing slot to dress off the points of the rakers, then turn the adjusting screw to (3½) and swage from end faces to the center raker. This indicates a three and one-half swage from end of the saw to the center raker. The filing slot is then utilized to dress the points of the raker and the adjusting screw is turned back to (3) again. The same thing is done on the other end of the saw, and by following the same operation the desired lead may be obtained.

Although I have shown and described herein a preferred embodiment of my invention, it is to be definitely understood that I do not desire to limit the application of the invention thereto, and any change or changes may be made in the materials, and in the structure and arrangement of the parts, within the spirit of the invention and the scope of the subjoined claims.

What is claimed is:—

1. A raker tooth gauge for saws comprising a flat body adapted to be positioned flat against the saw and having in one edge thereof a concave portion, a pair of plates of resilient metal secured to said edge upon opposite sides of said portion, respectively, to form a straight edge for resting on the teeth of the saw, said plates having opposed coengaging ends overlapping over said portion, the outermost end of one plate having a slot therein at one side of said portion and laterally offset from the underneath end to receive a raker tooth therein, and a set screw threaded through said body from the opposite edge thereof into engagement with the underneath one of said ends.

2. A raker tooth gauge for saws comprising a flat body adapted to be positioned flat against said saw and having in one edge thereof a concave portion, a pair of plates of resilient metal secured to said edge upon opposite sides of said portion, respectively, to form a straight edge for resting on the teeth of the saw, said plates having opposed coengaging ends overlapping over said portion, the outermost end of one plate having a slot therein at one side of said portion and laterally offset from the underneath end to receive a raker tooth therein, a set screw threaded through said body from the opposite edge thereof into engagement with the underneath one of said ends, and an arch-shaped member secured to the first-mentioned edge of the body to extend therefrom along side the concave portion and having a gauging pin threaded therein to extend along side said portion on the side thereof opposite the slot.

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