

Feb. 18, 1958

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2,823,709

PROTRACTOR FOR ELECTRIC HAND SAW

Filed May 29, 1956

3 Sheets-Sheet 1

FIG. 1

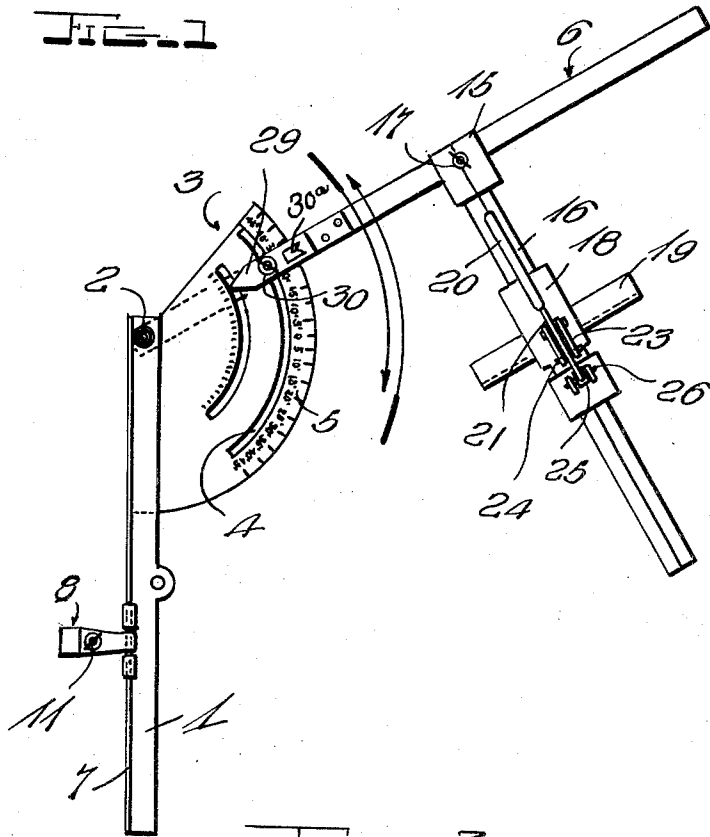


FIG. 2

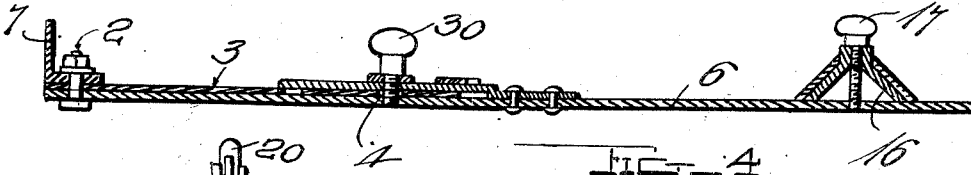
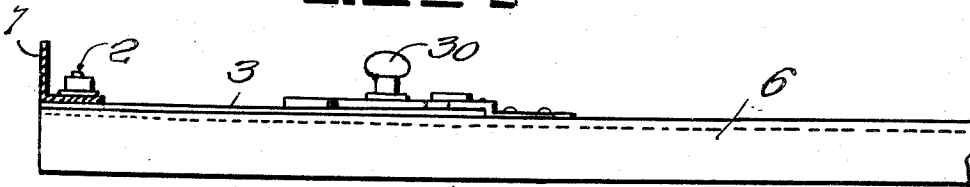
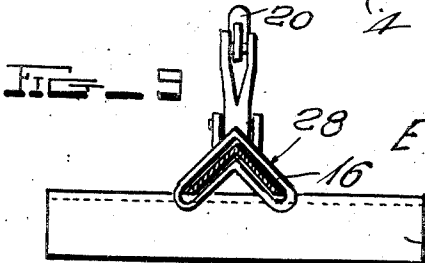


FIG. 4



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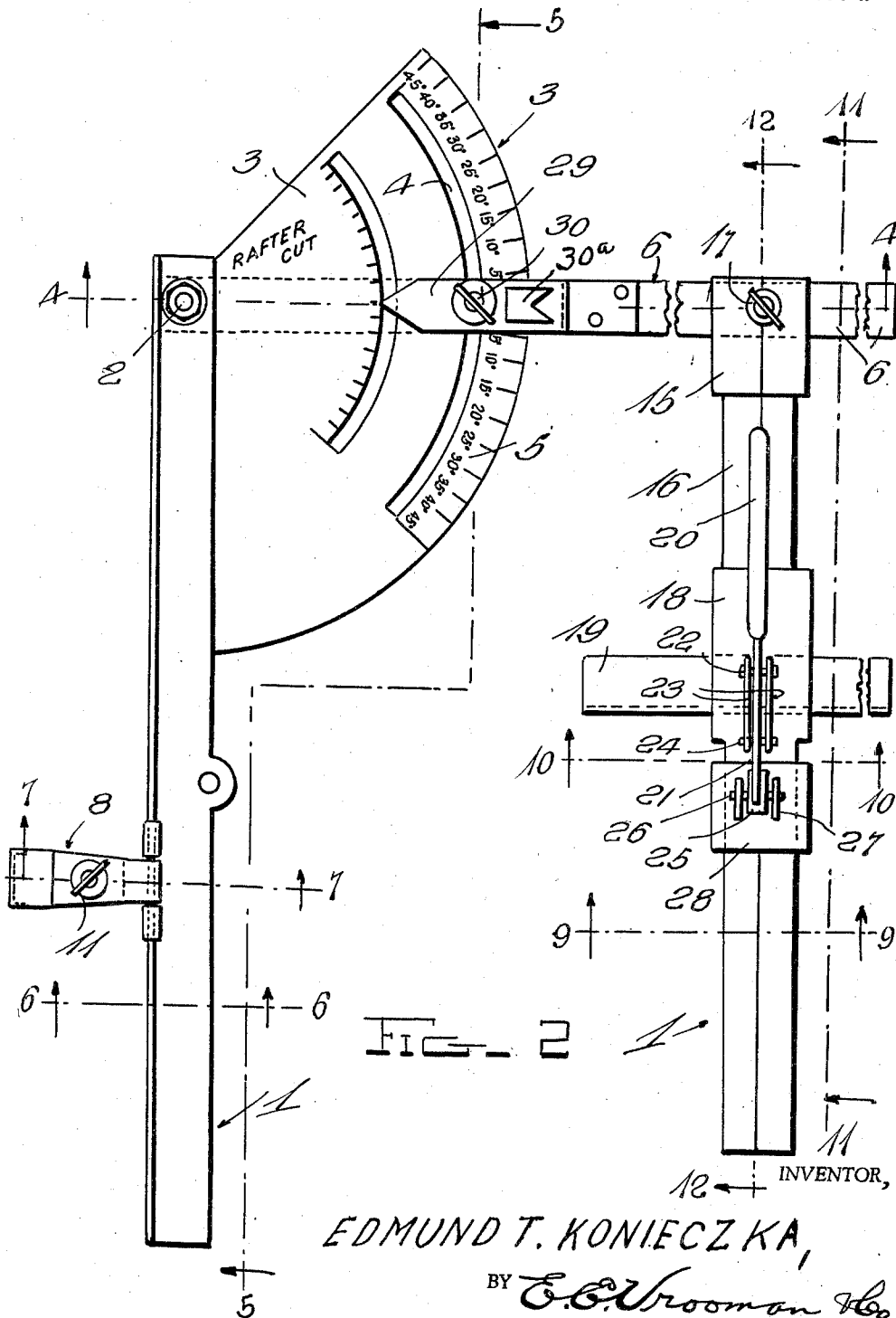
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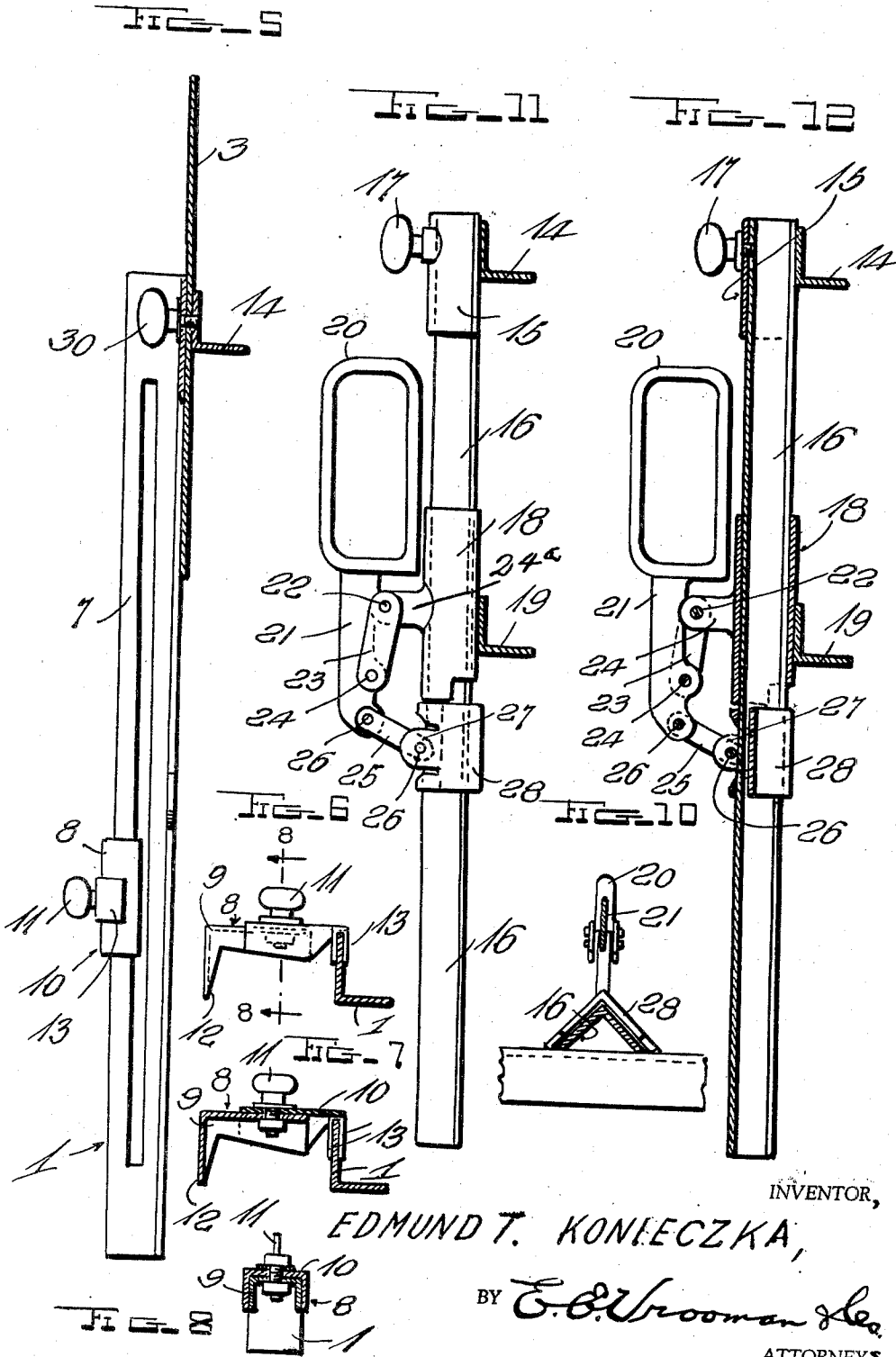
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2,823,709

PROTRACTOR FOR ELECTRIC HAND SAW

Edmund T. Konieczka, Nekoosa, Wis.

Application May 29, 1956, Serial No. 588,122

1 Claim. (Cl. 143—6)

This invention relates to a protractor for an electric hand saw.

An object of the invention is to provide a mechanism that is used as a protractor with an electric hand saw.

Another object of the invention is to provide a mechanism of this type with an adjustable saw-cut indicator which shows where the saw is to make its cut.

A further object of the invention is to provide a mechanism which will enable the operator to make precision cuts and to use the saw with both hands.

With the foregoing and other objects in view, this invention comprises certain novel constructions, combinations, and arrangements of parts as will be hereinafter fully described, illustrated in the accompanying drawings, and more particularly pointed out in the appended claim.

In the drawings:

Figure 1 is a view in front elevation, showing the mechanism adjusted to permit a cut at 30 degrees on a board or rafter.

Figure 2 is an enlarged fragmentary view in elevation.

Figure 3 is a view partly in elevation and partly in section.

Figure 4 is a longitudinal sectional view taken on line 4—4, Figure 2, and looking in the direction of the arrows.

Figure 5 is partly a view in elevation and partly a sectional view taken on line 5—5, Figure 2, and looking in the direction of the arrows.

Figure 6 is a sectional view taken on line 6—6, Figure 2, and looking in the direction of the arrows.

Figure 7 is a sectional view taken on line 7—7, Figure 2, and looking in the direction of the arrows.

Figure 8 is a vertical sectional view taken on line 8—8, Figure 6, and looking in the direction of the arrows.

Figure 9 is a detail sectional view taken on line 9—9, Figure 2, and looking in the direction of the arrows.

Figure 10 is a transverse sectional view taken on line 10—10, Figure 2, and looking in the direction of the arrows.

Figure 11 is a longitudinal sectional view taken on line 11—11, Figure 2, and looking in the direction of the arrows.

Figure 12 is a longitudinal sectional view of the mechanism taken on line 12—12, Figure 2, and looking in the direction of the arrows.

Referring to the drawings by numerals, 1 designates a saw guide which is angular shape in cross section. Fastened by means of a thumb screw 2 to said saw guide is a degree plate 3. In this degree plate 3 is an elongated slot 4. Contiguous to said slot 4 is a scale 5. A primary arm 6 is pivotally mounted at its inner end upon the thumb screw 2, Fig. 1.

On the edge 7 of the saw guide 1, Fig. 1, is mounted an indicator 8, which comprises an outer section 9 (Figs. 6 and 7) and an inner section 10. These two sections 9 and 10 are in slidable engagement, and a thumb screw 11 serves to retain these two sections in an adjusted position. The outer section 9 has a pointed end 12 and the inner

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section 10 has a bifurcated end 13. The bifurcated end 13 is detachably mounted upon the saw guide 1.

A stationary jaw 14 is integral with a sleeve 15 which is fitted on the outer end of the auxiliary arm 16. The sleeve 15 is held in an adjusted position upon arm 16 by means of assembly screw 17.

An auxiliary sleeve 18 is mounted upon the auxiliary arm 16, and this sleeve 18 is provided with an adjustable clamping jaw 19. This jaw 19 cooperates with jaw 14, and lumber may be clamped between these jaws 14 and 19.

A handle 20 (Figs. 11 and 12) is provided with an extension 21 which is pivotally connected at 24 to link 23, which link 23 is connected to stud 24a that is carried by sleeve 18. An auxiliary link 25 is pivotally connected at 26 to the outer end of the extension 21. Link 25 is connected at 26 to the stud 27 carried by lock 28.

In Figures 11 and 12 handle 20 is shown in a closed or locking position, wherein the lock 28 is tightly clamping the arm 16, holding jaw 19 in a fixed position. When handle 20 is swung outward, away from the arm 16, the lock 28 is released and then sleeve 18 can be adjusted on arm 16. Then by closing the handle 20 the lock will be set.

The primary arm 6 is provided with a pointer 29, which is held by plate lock screw 30, said screw 30 working in the slot 4 when the screw 30 is loosened and the operator shifts the angularity of the primary arm 6. At 30a is a fish-tail cut-put to see degree indicated.

It is understood that the indicator 8 permits the operator to indicate the line of cut.

Referring to Figure 9, the lock 28 is V-shape in cross section and the auxiliary arm 16 is also substantially V-shape, the V-shape lock 28 being capable of fitting tightly the V-shape arm 16.

While I have described the preferred embodiment of the invention and illustrated the same in the accompanying drawings, certain minor changes or alterations may appear to one skilled in the art to which this invention relates during the extensive manufacture of the same, and I, therefore, reserve the right to make such changes or alterations as shall fairly fall within the scope of the appended claim.

What I claim is:

In a mechanism of the class described, a saw guide comprised of a length of angle iron having a flat portion and an upright portion perpendicular thereto, an indicator slidably mounted on said upright portion, said indicator comprising an inner section and an outer section slidable relative to each other, means for securing the sections in a desired position of adjustment, a bifurcated end on said inner section detachably secured to said upright portion, a depending marker point on said outer section, an auxiliary arm pivotally mounted on one end of said guide, a degree plate fixed to said guide, said degree plate having a pair of arcuate slots therein, degree indicia marked adjacent said slots, a pointer affixed to said auxiliary arm, said pointer having a cut-out portion through which certain of said degree indicia may be read, a clamping member extending through one of said slots for securing said auxiliary arm in a desired position of angularity relative to said guide, a sleeve slidable on said auxiliary arm, a clamping jaw fixed to said sleeve, a second auxiliary arm fixed to said sleeve in perpendicular relation to said first-mentioned arm, a second sleeve slidable upon said second auxiliary arm, a second clamping jaw parallel to said first-mentioned jaw carried by said second sleeve movable to clamp lumber between said jaws, and means for clamping said last-mentioned jaw in a selected position, said last-mentioned clamping means comprising a stud on said sleeve, a link pivotally connected at one end to said stud, a handle, an extension

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on said handle, a pivotal connection between an intermediate portion of said extension and the other end of said link, a second link pivotally connected to the end of said extension, a clamp lock surrounding said second auxiliary arm, a stud carried by said clamp lock, and a 5 pivot connecting said last-mentioned stud to the other end of said second link whereby when said handle is moved towards said second auxiliary arm said clamp lock will preclude movement of said second sleeve, the linkage forming an over-center snap to secure said clamp lock 10 in clamping position.

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References Cited in the file of this patent

UNITED STATES PATENTS

2,735,455	Forsberg	Feb. 21, 1956
2,773,523	Hopla	Dec. 11, 1956

FOREIGN PATENTS

311,432	Switzerland	Mar. 31, 1919
631,301	Great Britain	Oct. 31, 1949
666,254	Great Britain	Feb. 6, 1952