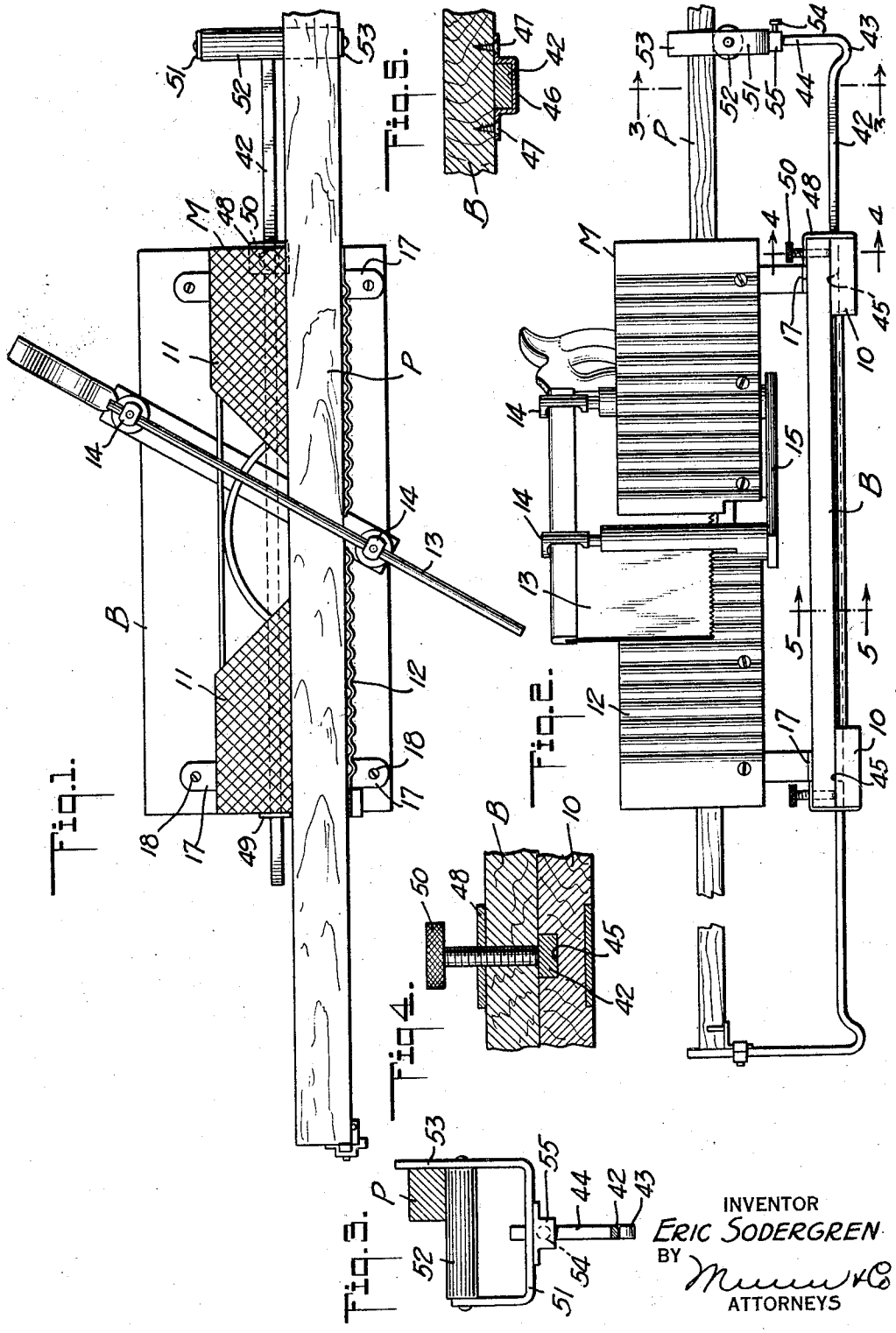
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WORK SUPPORT

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# UNITED STATES PATENT OFFICE

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## WORK SUPPORT

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This application is a division of my application on Gaging instrument for miter boxes, Serial No. 252,265, filed February 6, 1928.

My present invention relates to and has for a purpose the provision of a work support particularly adapted although not necessarily, for use in conjunction with the gaging instrument above referred to, and by which a piece of material of such dimensions as to project from an end of the miter box and to bend downwardly under its own weight sufficiently to interfere with the accurate gaging of the piece, can be supported at a distance from the miter box and in alinement with that portion of the piece directly supported by the miter box, so that an accurate gaging of the piece will be insured.

It is a further purpose of my invention to provide a work support of the above described character which is adjustable in such manner as to compensate for variations in height of the beds of different miter boxes so as to be capable of functioning to support the piece of work in proper alinement with the miter box irrespective of the height of the bed of the particular miter box with which the work holder is associated.

I will describe only one form of work support embodying my invention and will then point out the novel features thereof in claims.

In the accompanying drawing,

Figure 1 is a view showing in plan, one form of work support embodying my invention, associated with a conventional form of miter box.

Figure 2 is a view showing the work support in side elevation, in its association with the miter box.

Figure 3 is a vertical sectional view taken on the line 3—3 of Figure 2 and looking in the direction of the arrows, and

Figures 4 and 5 are enlarged fragmentary vertical sectional views taken respectively on the lines 4—4 and 5—5 of Figure 2 and looking in the direction of the respective arrows.

Referring specifically to the drawings in which similar reference characters designate similar parts in each of the several views, my invention in its present embodiment comprises a base B of rectangular form preferably constructed of wood and having transversely extending strips 10 secured thereto at its ends and constituting feet for supporting the base in elevated position on a work bench or other support.

Upon the base B is adapted to be mounted a conventional form of miter box M including a flat bed or saw table 11 from one longitudinal edge of which rises a perpendicular back rest 12 adapted to co-act with the bed in supporting a piece of material in a definite position for sawing by a saw 13 mounted to reciprocate in slotted guide posts 14 secured to a frame 15 pivotally mounted to permit angular adjustment of the saw with respect to the work, all of which is well known in the art and will be understood.

The miter box M is provided with attaching ears 17 by means of which the box is ordinarily secured to a work bench. However, when associated with my work holder the ears 17 are utilized to permanently secure the miter box to the base B in a definite fixed position, and to this end screws 18 extending through the ears are threaded into the base so that the miter box and base become a single unit and can be moved about on the work bench as desired.

In the present instance the base B serves as a support for a bar 42 of rectangular cross-section bent downwardly adjacent one end to provide a foot 43 adapted to rest on the work bench, and then bent upwardly to provide an upstanding portion 44. The bar 42 is slidably mounted in alined grooves 45 formed in the strips 10 extending longitudinally of the base B, and in a channel shaped housing 46 (Figure 5) spanning the strips and secured to the underside of the base by screws 47.

A U-shaped guide member 48 is secured to the end of the base B opposite that with which a gaging instrument G described and claimed in the application above identified, is adapted to be associated, and is provided with an opening slidably receiving the bar 42, while a guide plate 49 is secured to the other end of the base and is provided with an opening through which the bar 42 is adapted to

extend. Threaded into the U-shaped guide member 48 is a clamping screw 50 adapted to be screwed into clamping engagement with the bar 42 so as to lock the latter in a selected adjusted position.

Upon the upstanding portion 44 is slidably mounted for vertical adjustment a yoke 51, in the vertical arms of which is journaled horizontally and on an axis transverse with respect to the length of the base B, a roller 52. One of the arms 53 of the yoke is extended above the roller as shown in Figure 3, and is adapted to co-act with the roller in supporting the projecting portion of a piece of material P in the same horizontal and vertical planes as that portion of the piece supported directly by the bed 11 and abutting the back rest 12 of the miter box.

The yoke 51 can be locked in any vertically adjusted position by means of a screw 54 threaded into a sleeve 55 secured to the horizontal connecting arm of the yoke, the sleeve slidably receiving the upstanding portion 44 of the bar 42 and the screw 54 being adapted to bear against the upstanding portion and thus clamp the yoke in a selected position of vertical adjustment.

As the inner face of the extended portion of the arm 53 of the yoke is perpendicular and is in the same vertical plane as the inner face of the back rest 12, it will be clear that with the yoke adjusted to dispose the uppermost portion of the periphery of the roller 52 in the same horizontal plane as the surface of the bed 11, that the projecting portion of the piece P will be supported in alinement with that portion of the piece directly supported by the bed and back rest of the miter box.

Furthermore, it will be clear that by the provision of the slidable mounting of the bar 42 in the base B, that the yoke can be adjusted towards and away from the miter box longitudinally of the latter, so that the yoke can be disposed at the location most advantageous to support the projecting portion of the work in alinement with the bed and back rest of the miter box. In addition the provision of the roller 52 permits the work to be readily shifted longitudinally of the miter box, as the roller is free to rotate in response to shifting of the work and thus reduces friction to a minimum.

Although I have herein shown and described only one form of work support embodying my invention, it is to be understood that various changes and modifications may be made therein without departing from the spirit of the invention and the spirit and scope of the appended claims.

I claim:

1. In combination, a miter box having a bed upon which a piece of material to be sawed is adapted to rest, and a back rest against which the material is adapted to abut so as to co-operate with the bed in supporting the piece for sawing, and a work holder having means on which a projecting portion of the piece is adapted to rest and be supported in alinement with the bed of the miter box, and means against which a side of the projecting portion of the piece is adapted to abut and be disposed in alinement with the back rest of the miter box.

2. A work holder comprising a base on which a miter box is adapted to be secured, a yoke having a roller journaled therein, on which a projecting portion of a piece of work is adapted to rest, means for supporting the yoke from the base with the roller in the same plane as the bed of the miter box, and means against which a side of the piece of work resting upon the roller is adapted to abut, co-acting with the roller to dispose the projecting portion of the work in the same planes as the bed and back rest respectively, of the miter box.

3. A work holder comprising a base on which a miter box is adapted to be secured, a yoke having a roller journaled therein, on which a projecting portion of a piece of work is adapted to rest, means for supporting the yoke from the base with the roller in the same plane as the bed of the miter box, and means for rendering the yoke adjustable vertically with respect to the base for the purpose described.

4. A work holder comprising a base on which a miter box is adapted to be secured, a bar mounted in the base for sliding movement horizontally and having an upstanding portion, a yoke having a sleeve slidably receiving the upstanding portion, a roller journaled horizontally in the yoke and on which a projecting portion of a piece of work is adapted to rest, a clamp screw threaded into the sleeve and adapted to engage the upstanding portion to secure the yoke in a selected position of vertical adjustment, and an abutment projecting above the roller for co-action with the latter in supporting the projecting portion of the piece in alinement with the bed and back rest of the miter box.

5. A work holder comprising a base on which a miter box is adapted to be secured, a bar mounted in the base for sliding movement horizontally and having an upstanding portion, a yoke having a sleeve slidably receiving the upstanding portion, a roller journaled horizontally in the yoke and on which a projecting portion of a piece of work is adapted to rest, and a clamp screw threaded into the sleeve and adapted to engage the upstanding portion to secure the yoke in a selected position of vertical adjustment, one arm of the yoke being extended above the roller for co-action therewith in supporting the projecting portion of the piece in alinement with the bed and back rest of the miter box.

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