(No Model.) 2 Sheets—Sheet 1.

H. F. KUHLMANN.

SAW GUARD.

No. 286,710. Patented Oct. 16, 1883.

Fig. 1.

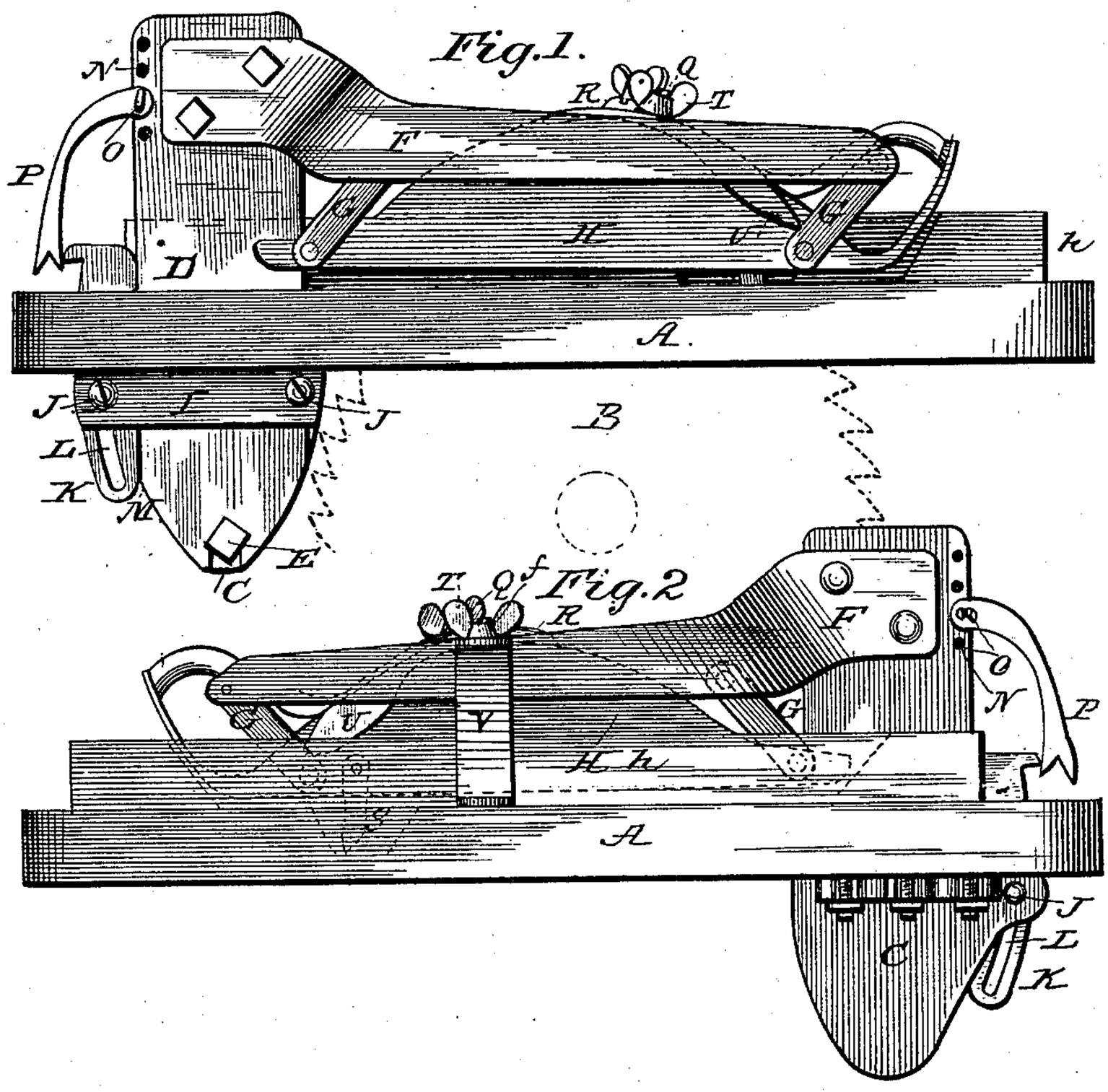
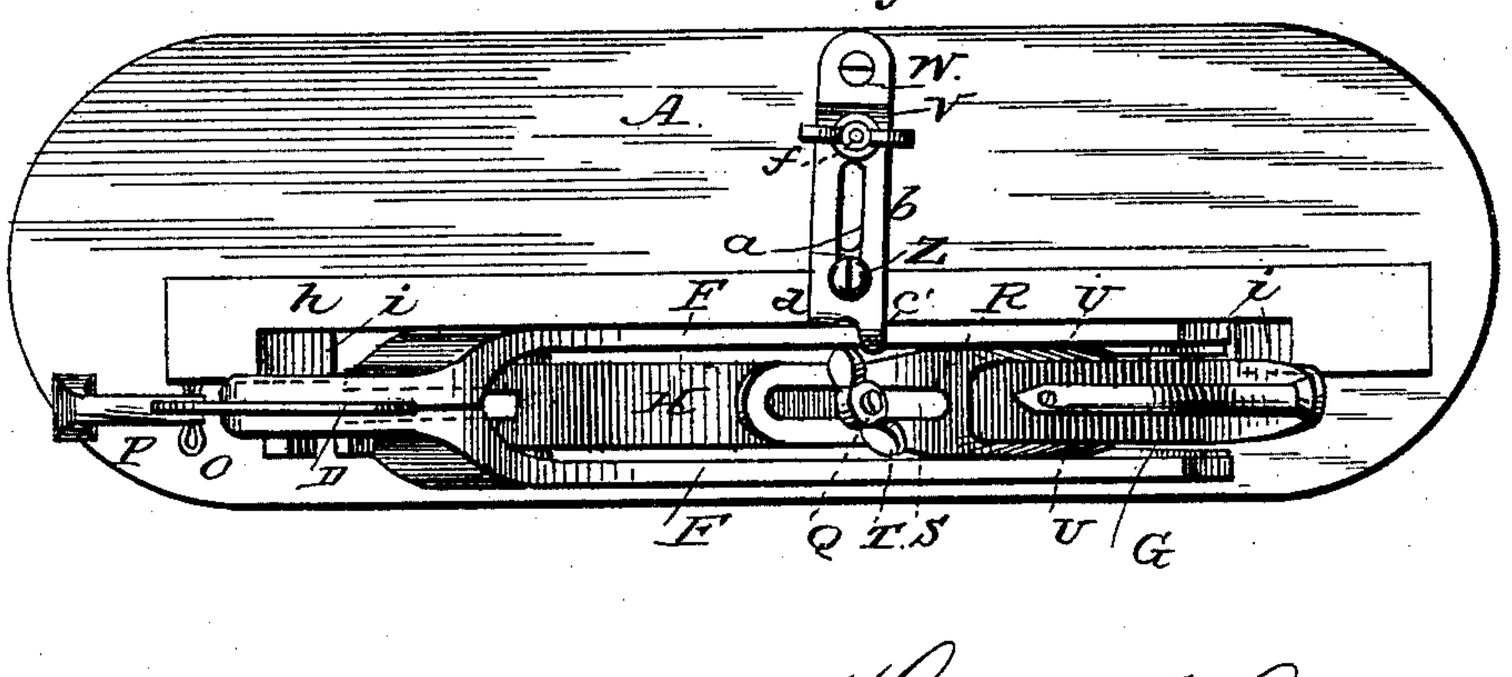


Fig. 3



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(No Model.) 2 Sheets—Sheet 2.

H. F. KUHLMANN.

SAW GUARD.

No. 286,710. Patented Oct. 16, 1883.

Fig. 4.

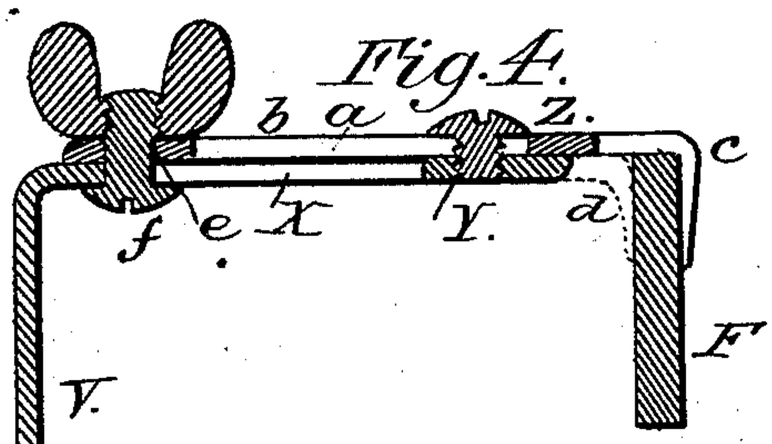


Fig. 5.

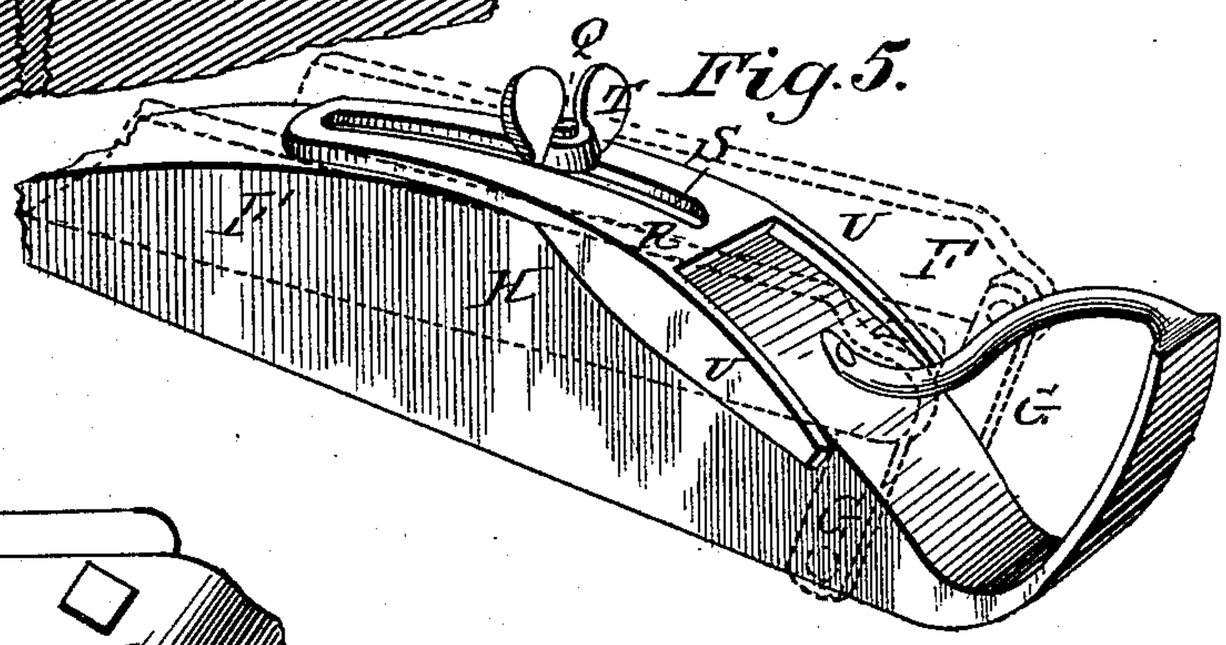


Fig. 6.

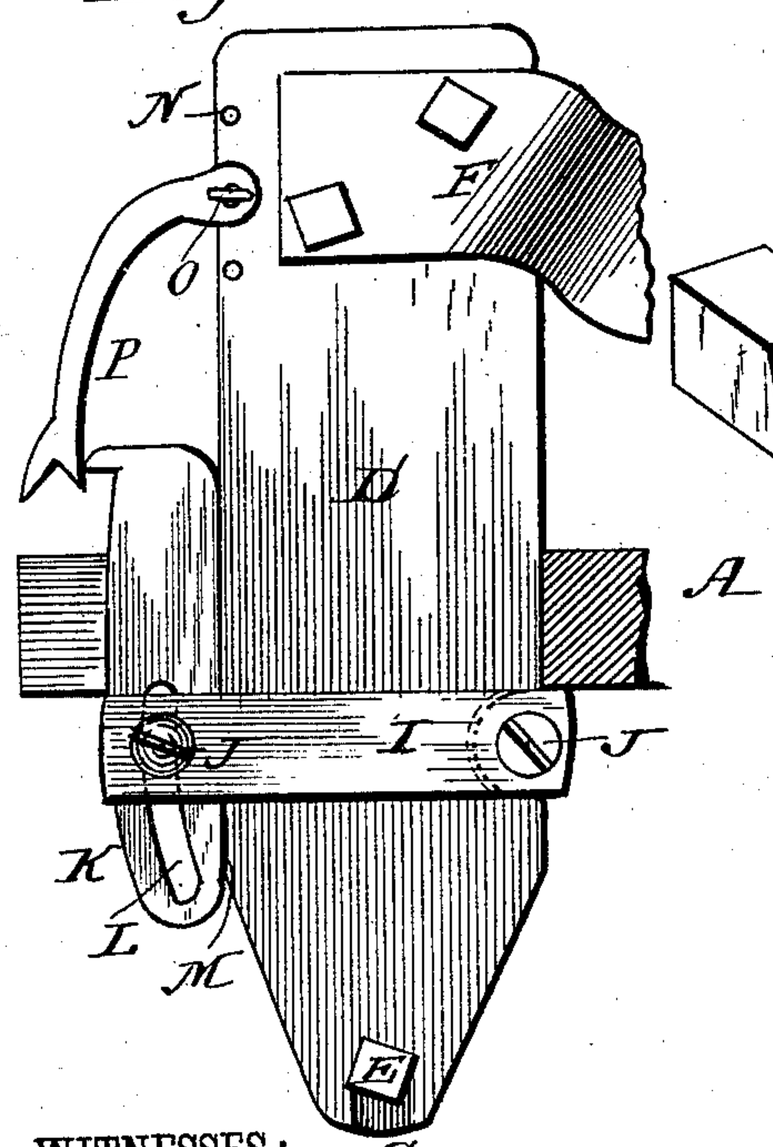
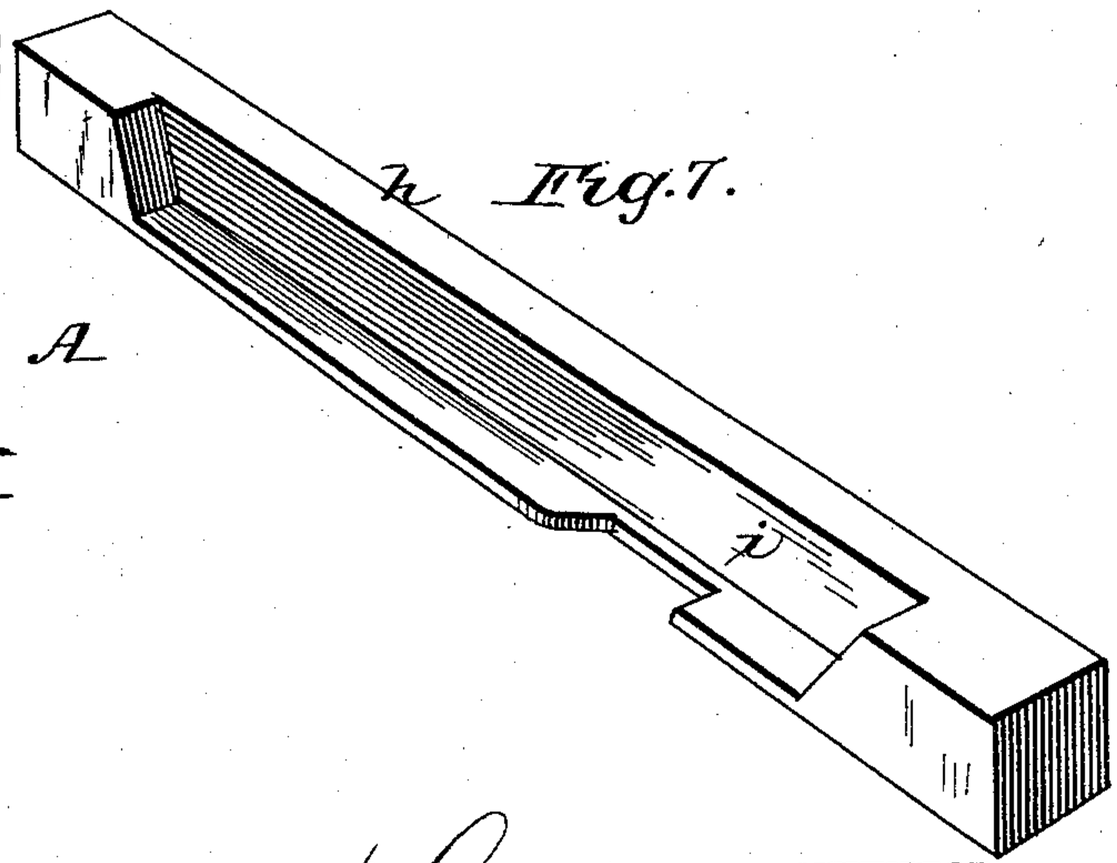


Fig. 7.



WITNESSES:

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UNITED STATES PATENT OFFICE.

HENRY F. KUHLMANN, OF INDIANAPOLIS, INDIANA, ASSIGNOR TO THE NATIONAL SAW-GUARD COMPANY, OF SAME PLACE.

SAW-GUARD.

SPECIFICATION forming part of Letters Patent No. 286,710, dated October 16, 1883.

Application filed August 15, 1883. (No model.)

To all whom it may concern:

Be it known that I, HENRY F. KUHLMANN, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Saw-Guards, of which the following is a specification, reference being had therein to the accompanying drawings.

Figure 1 is a side view of my improved saw-guard. Fig. 2 is a similar view from the other side of the same. Fig. 3 is a top view, and Figs. 4, 5, 6, and 7 are detail views, of the several parts constituting my improvements.

Similar letters of reference indicate corresponding parts in all the figures.

My invention has relation to saw-guards, and it contemplates certain improvements upon the saw-guards for which Letters Patent Nos. 264,412, 281,274, and 281,275 were granted to me, respectively, on the 12th day of September, 1882, and on the 17th day of July, 1883; and it consists, to that effect, in the improved construction and combination of parts of the same, as hereinafter more fully described and claimed.

In the accompanying drawings, the letter A indicates the saw-table; B, the saw; C, the adjustable sliding base-plate; D, the flat swinging plate or upright, pivoted upon a bolt, E, fitting in a perforation in the lower end of the downwardly-projecting end of the base-plate, and having the rearwardly-extending arms F secured to its upper end, to the insides of which arms the swinging arms G are hinged, upon the lower ends of which arms the hood H is hinged, all of which parts are of the same construction, and perform the same functions as the corresponding parts in the former patents.

A flat bar or plate, I, is fastened by means of two screws, J, one at each end, fitting into perforations in the vertical portion of the base-plate, immediately below the table, and bears against the outer side of the upright, allowing it to swing in a vertical plane, the screws being secured at such a distance apart that they will allow the upright sufficient play. The inner one of these screws fits with its shank into a notch, I′, in the rear edge of the upright plate, the lower end of which is provided with a slot or notch, E′, which is slid upon the shank of the bolt E, rocking upon the same, and the notch I′ will prevent the plate from being drawn upward off from the bolt when it is brought to bear around the shank of the screw. A plate, K, having a longitudinal slot, L, sliding upon the outer one of the screws J, bears with its inner edge, M, against the adjoining edge of the upright, and the said edge and the edge of the slot form a wedge-shaped portion of the plate between them, increasing in width toward the upper end, so that by drawing the wedging-plate upward the upright plate may swing forward, disengaging the notch from the screw and allowing the upright and hood to be removed, the notch at the lower end sliding off the pivotal bolt, while, by driving the wedging-plate down and securing it there, it will hold the upright from being removed. In this manner the hood may be removed and another hood of a different size be substituted, enabling the same table and base-plate to be used with a different size of saw, and consequently with a different size of hood.

Near the edge of the upright is a series of perforations, N, in which a split key, O, may be inserted, which key passes through the upper bifurcated and perforated ends of the back stop, P, which is similar to the back stop used in my former guards, and which may be adjusted at different heights, according to the thickness of the lumber. A screw, Q, projects upon the upper curved side of the hood a short distance from the middle of that side in the direction of the end at which the lumber enters under the hood, and a plate, R, having a curve corresponding to the curve of the hood, and having a longitudinal slot, S, through which the screw projects, slides upon the screw, and may be adjusted upon the same by means of a thumb-nut, T, fitting upon the screw and bearing against the upper surface of the plate. The end of the plate pointing toward the end at which the lumber enters under the hood is provided with two arms, U, which bear against the sides of the hood, pointing toward the aforementioned end of the hood, bearing with their ends against the edges of two of the swinging arms from which the hood is sus-

pended; and it will be seen that by adjusting the curved plate, and consequently the arms, nearer to or farther from the end of the hood, the arms will, by striking the swinging arms, stopping them from swinging farther, prevent the hood from being raised higher up from the table than is necessary for admitting the thickness of lumber to be sawed.

An upright brace, V, consisting of a vertical portion, having a lip at its lower end, through which a screw or bolt, W, passes, and a horizontal portion, having a longitudinal slot, X, is pivoted adjustably upon the table at the side of the hood upon the aforesaid screw or bolt, which may be fastened in the table at any desired distance from the guard according to the width of the lumber to be sawed; and the horizontal portion of the brace has a perforation, Y, at its outer end, outside the slot, in which a screw, Z, fits and turns, which screw passes from above through a longitudinal slot, *a*, in a plate, *b*, one end of which is bifurcated, having the ends bent downward, one, *c*, of which ends is longer than the other, *d*, so that the longer bent end clasps over the edge of the rearwardly-extending arms at that side, and the shorter bent end bears against the outer side of the said arm, the two ends thus clasping the upper edge of the same. The other end of this plate has a perforation, *e*, through which passes a screw, *f*, having a thumb-nut at its upper end, while its lower end slides in the slot in the horizontal slot in the upright brace, bearing with its head against its under side; and it will be seen that by sliding the slotted plate upon the screws the upright may be adjusted at any desired distance from the guard, and the ends of the plate clasp the upper edge of the arms of the same, bracing it and supporting it.

A pointed back stop, *g*, is pivoted upon one of the sides of the hood, near the end at which the lumber enters under the hood, and is of the same construction and performs the same function as the back stop described in Patent No. 281,275.

A block, *h*, is adjustably fastened upon the table at the side of the guard, and may be adjusted parallel to the saw at any desired distance from the same, and serve as a guide and gage for lumber to be sawed, and the side nearest to the hood is recessed, as shown at *i*, to adapt the block to be placed close to the saw, the recess corresponding in shape to the shape of that side of the hood and the back stop, which is preferably pivoted at the side of the hood.

It will thus be seen by the foregoing description, taken in connection with the accompanying drawings, that the play of the upright may be adjusted as desired, the arms supporting the hood braced, and the swing of the hood limited to the height necessary.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. The combination of a flat upright having a saw-guarding hood hinged to arms extending from its top and pivoted at its lower end upon an adjustable base-plate, a plate fastened by means of screws to the outside of the said base-plate, bearing against the outside of the upright, the said screws being apart at such a distance as to allow the upright to swing in a vertical plane, and a flat slotted plate sliding with its slot upon the outermost of the screws, and forming a wedge-shaped portion between the inner edge and the edge of the slot, said wedge-shaped portion increasing in width toward the top, as and for the purpose shown and set forth.

2. The combination of the hood swinging upon hinged arms between two rearwardly-extending arms, and having a screw upon its curved upper side provided with a thumb-nut, with a curved plate having a longitudinal slot sliding upon the said screw upon the upper side of the hood, and having two arms extending rearwardly upon the sides of the hood, bearing with their ends against the edges of the rear pair of hinged arms, as and for the purpose shown and set forth.

3. The combination of a saw-guard having a pivoted upright, rearwardly-extending arms, and a hood swinging between the said arms, with a rectangularly-bent upright pivoted adjustably upon the saw-table at its lower end, and having a longitudinal slot in its horizontal portion, and a perforation in the outer end of the said portion provided with a screw passing through the said perforation, and a slotted plate having a perforation in one end, and having its other bifurcated ends bent downward at different length, forming two clamping-lips, and having a screw provided with a thumb-nut passing through the perforation and through the slot in the horizontal slot in the upright, and having the screw passing through the perforation in the horizontal portion of the upright and through the slot in the plate, bearing with its head upon its upper side, as and for the purpose shown and set forth.

4. The combination of a hood swinging between two rearwardly-pointing arms in a saw-guard, with a guide-block fastened adjustably upon the saw-table, and having a recess corresponding in shape to the side of the hood upon the side adjoining the hood, as and for the purpose shown and set forth.

In testimony whereof I hereunto affix my signature in presence of two witnesses.

HENRY F. KUHLMANN.

Witnesses:
SALMON A. BUELL,
LOUIS LIEBRICH.