

(No Model.)

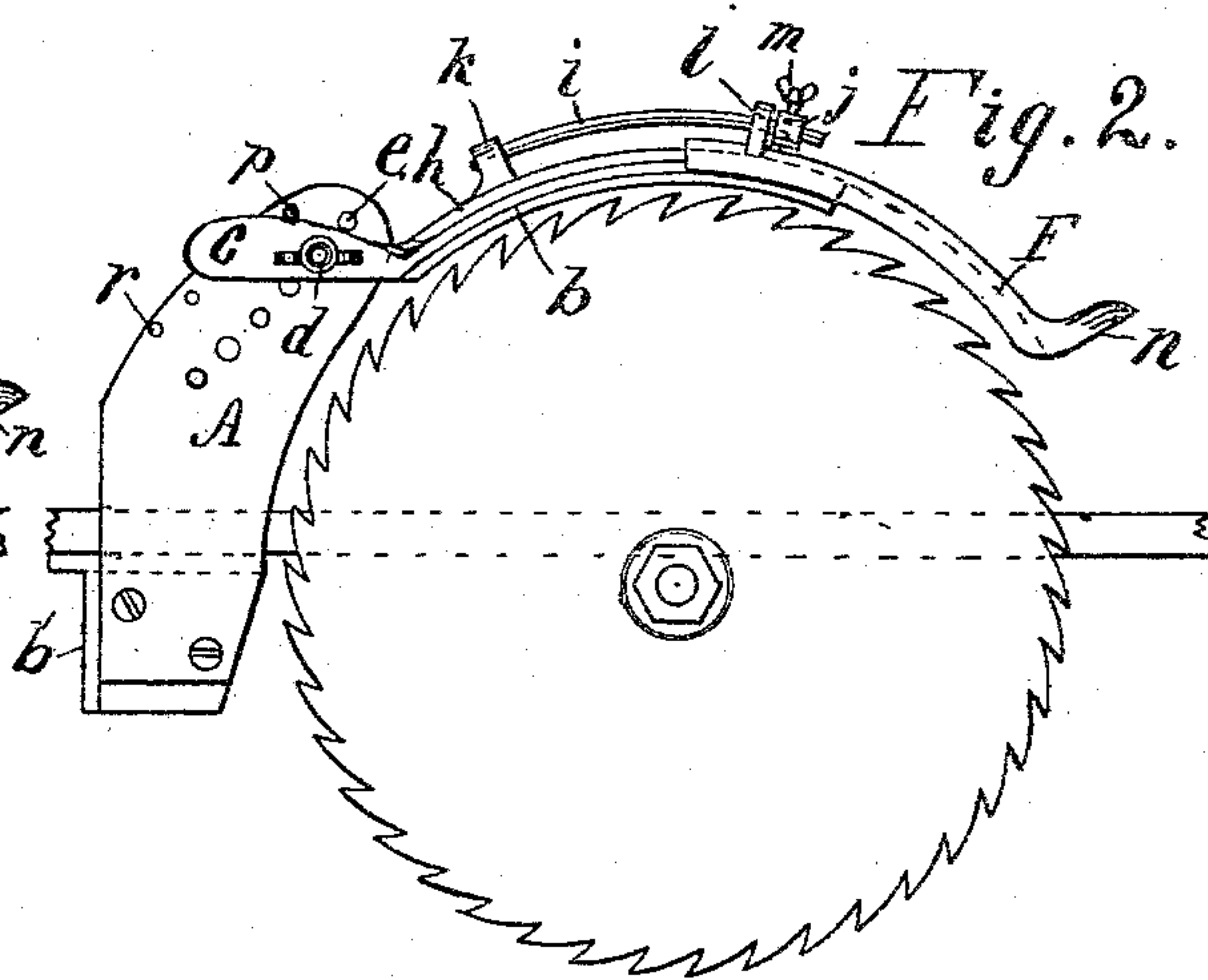
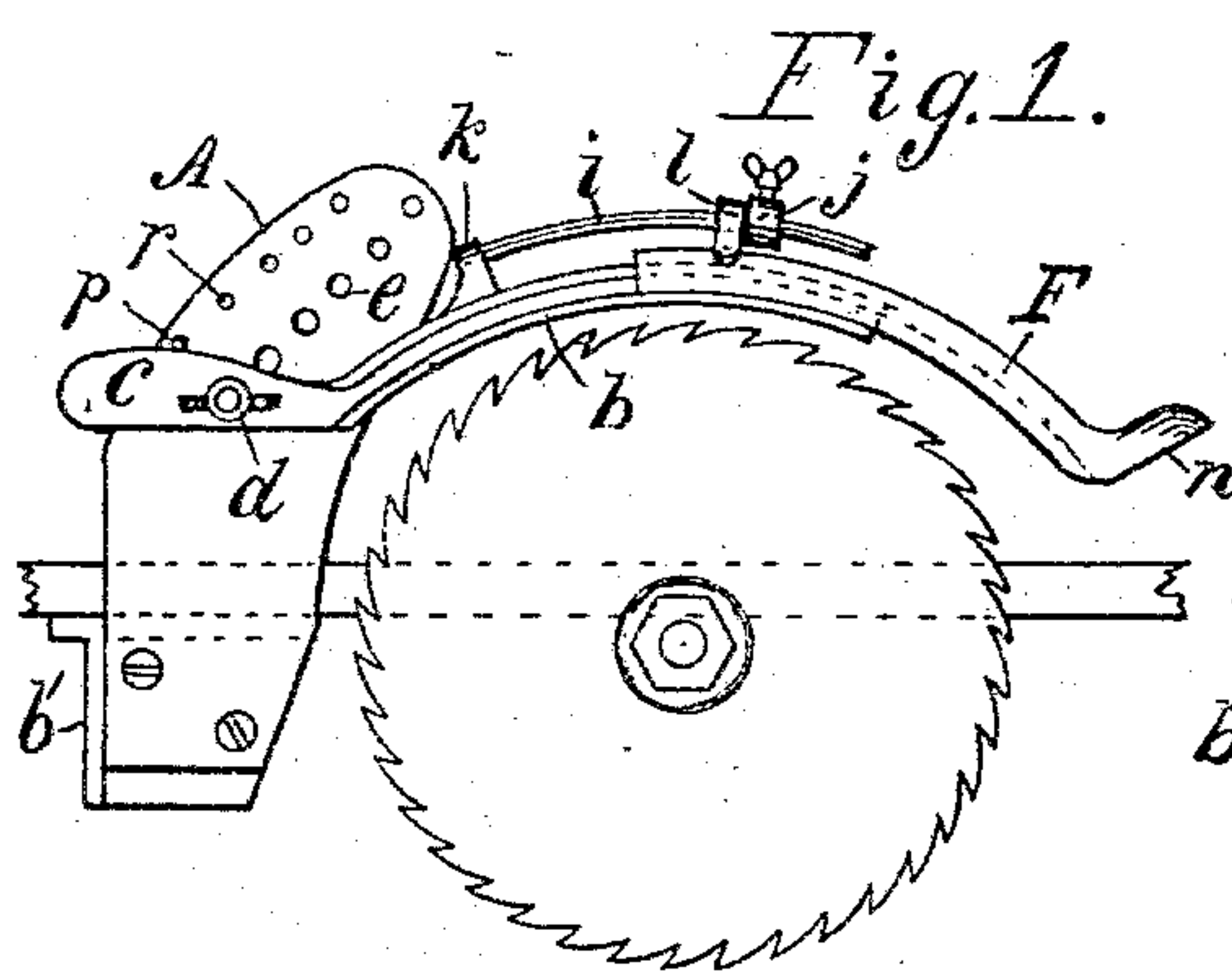
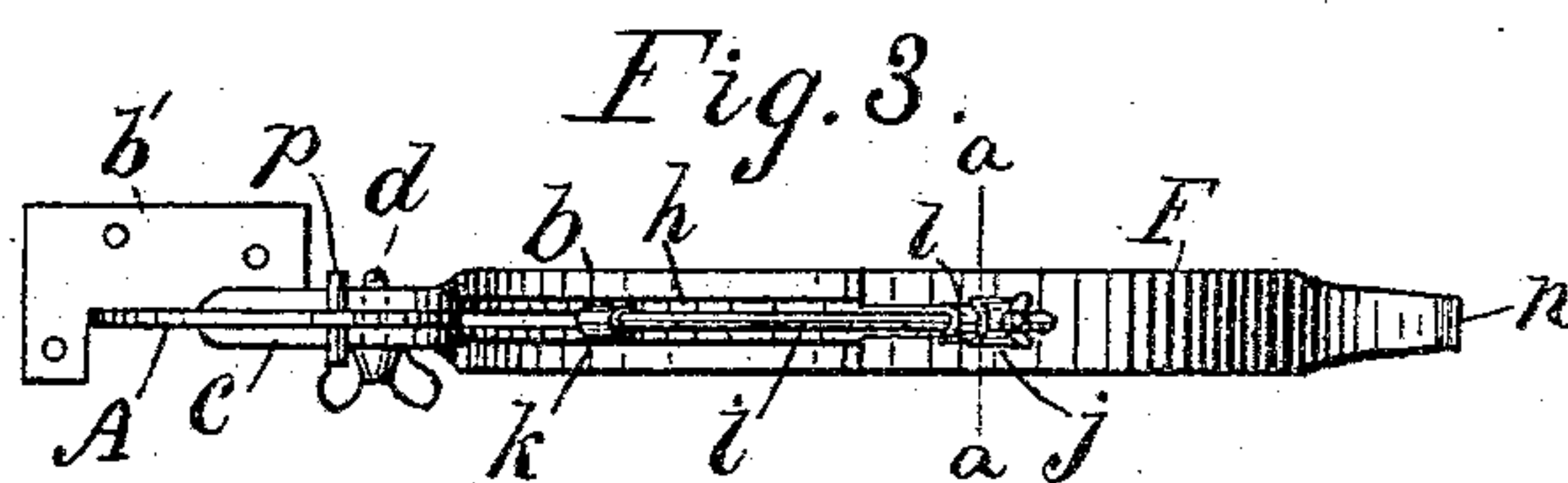
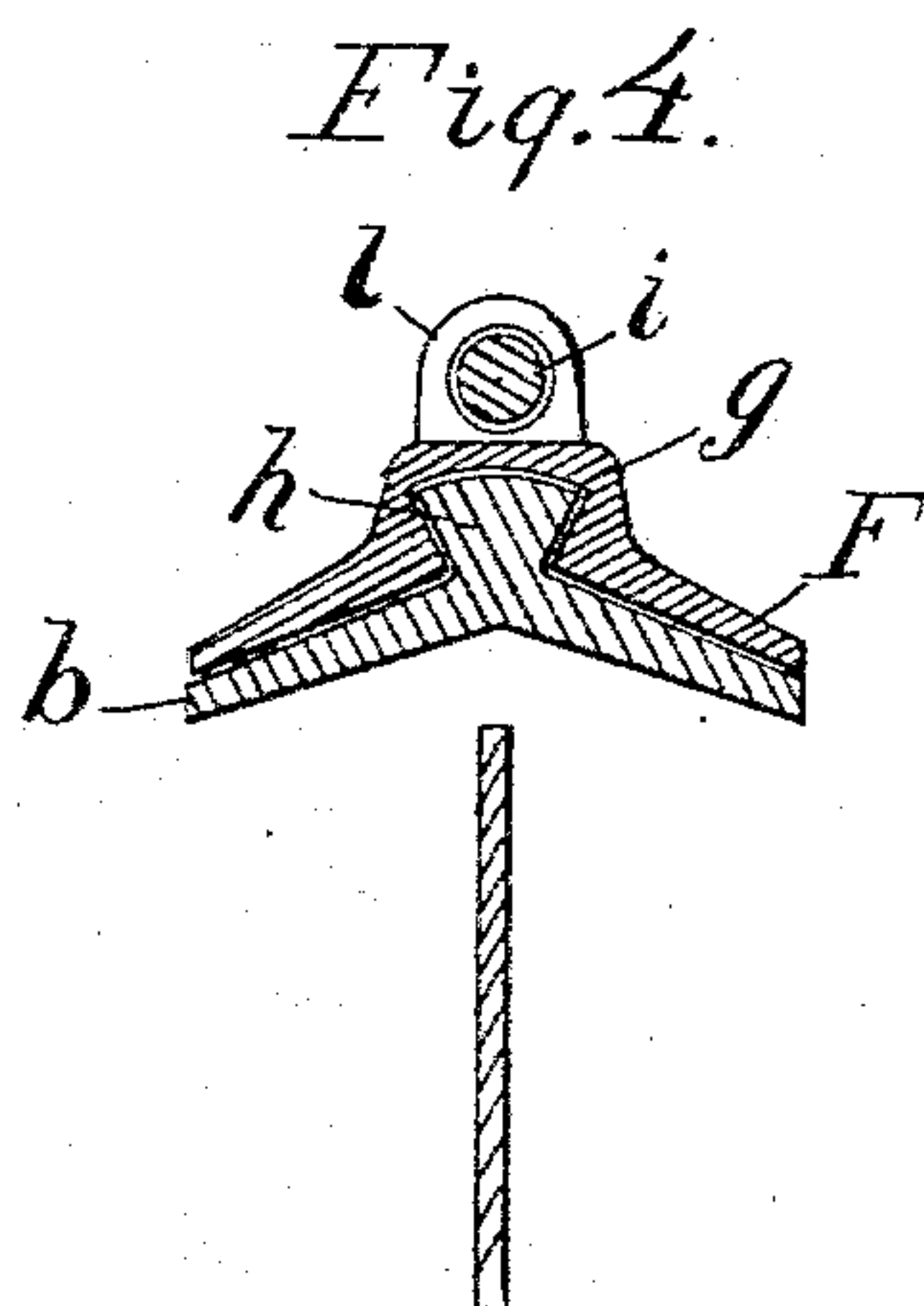
2 Sheets—Sheet 1.

J. A. COMER.

SAW GUARD.

No. 321,484.

Patented July 7, 1885.



WITNESSES:

V. M. Hood.
M. Carsten

INVENTOR:

Joseph A. Comer
By H. P. Hood
Att.

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2 Sheets—Sheet 2.

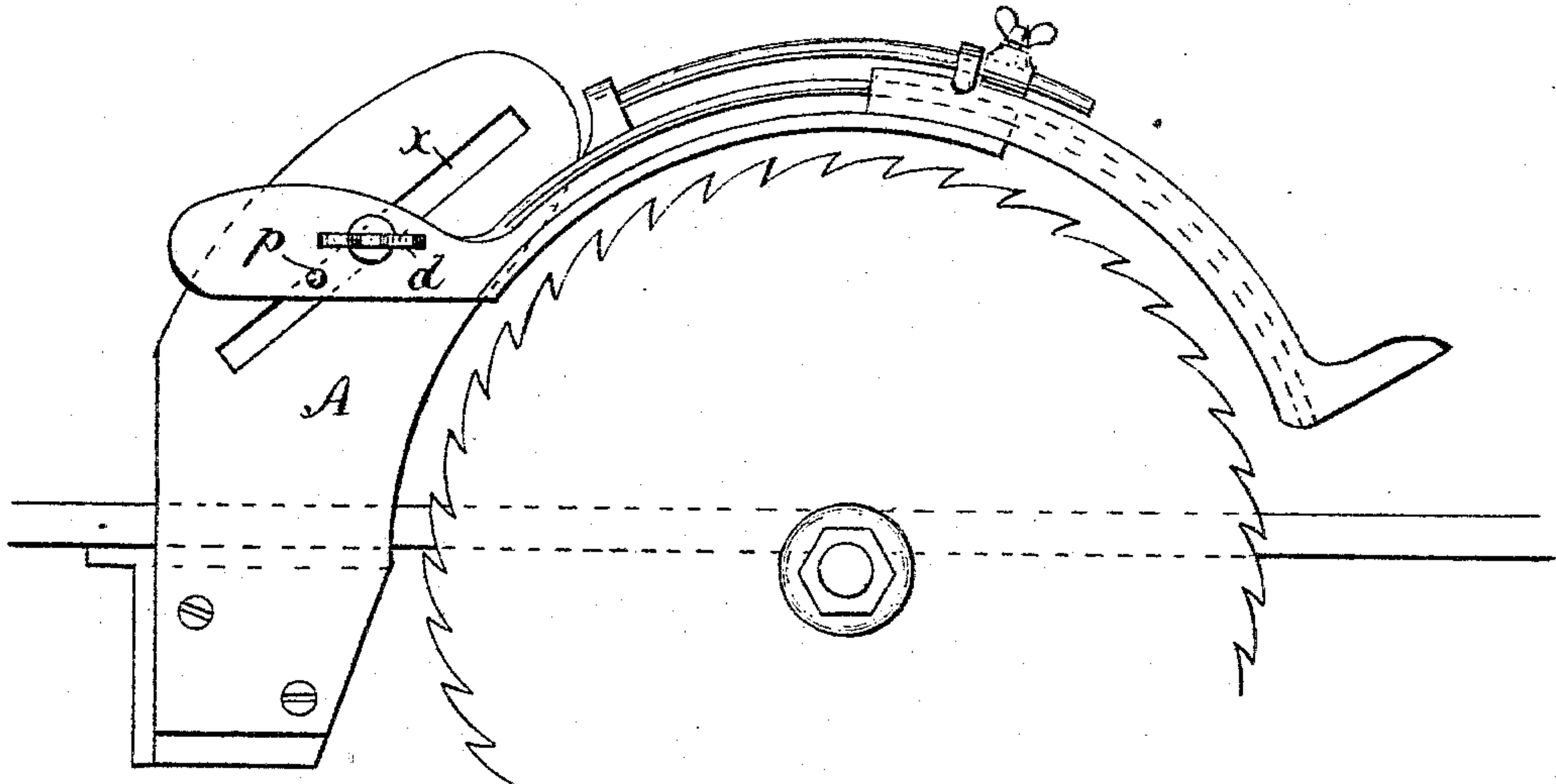
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Fig. 5.



WITNESSES:
V. M. Hood.
W. Carter

INVENTOR:
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UNITED STATES PATENT OFFICE.

JOSEPH A. COMER, OF INDIANAPOLIS, INDIANA, ASSIGNOR TO THE
NATIONAL SAW GUARD COMPANY, OF SAME PLACE.

SAW-GUARD.

SPECIFICATION forming part of Letters Patent No. 321,484, dated July 7, 1885.

Application filed February 19, 1885. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH A. COMER, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented a new and useful Improved Saw-Guard, of which the following is a specification.

My invention relates to an improved saw-guard for circular saws. The objects of my improvement are to provide a guard which shall be substantially concentric with the periphery of the saw, covering the edge only of the saw, and to make the guard automatically adjustable to different thicknesses of lumber in a line substantially concentric with the periphery of the saw, as hereinafter explained.

The accompanying drawings illustrate my invention.

Figure 1 is a side elevation of my guard adjusted to a saw of small diameter. Fig. 2 is a similar view of the guard adjusted to a saw of larger diameter. Fig. 3 is a plan. Fig. 4 is an enlarged section at *a a*, Fig. 3. Fig. 5 represents a modification of the means for holding the guard-arm in position.

A is a thin vertical standard, adapted to be secured to the saw-table by means of a bracket, *b'*, secured to the lower end of said standard. That edge of standard *A* next the saw is curved to correspond substantially with the outline of the largest saw with which the guard is designed to be used.

b is a curved arm, having a straight portion, *c*, which is split so as to embrace both sides of the standard *A*, to which the arm is secured by means of a thumb-screw, *d*, which passes through said arm and through either one of a series of holes, *e*, in the standard, or through the slot *x*, Fig. 5, thus clamping the arm strongly to the standard.

The arrangement of holes *e* and slot *x* is such that as the arm is moved from the upper to the lower end of the standard it is also drawn toward the standard, the purpose being to cause the combined curves of the arm and the standard to form a curve substantially corresponding with the outline of the peripheries of saws of different diameters. Arm *b* is of such length as to leave the front edge of the saw exposed.

F is a curved guard, fitting the back of arm *b*, and adapted to slide longitudinally thereon, and held in place on said arm by means of a longitudinal dovetailed groove, *g*, which embraces a correspondingly-shaped rib, *h*, formed on the back of the arm.

For the purpose of limiting the longitudinal movement of guard *F*, a lug, *l*, projects upward from the back of said guard, and a rod, *i*, carrying a movable stop, *j*, is secured at one end to a lug, *k*, formed integral with arm *A*. Stop *j* is arranged to intercept lug *l* in its outward movement, and is adjustably secured on the rod *i* by a set-screw, *m*.

The outer end of guard *F* is turned upward to form the inclined face *n*, for the purpose of causing the lumber as it approaches the saw to automatically adjust the guard to the thickness of the lumber.

For the purpose of preventing the sawdust from flying out sidewise from the saw, that side of arm *A* and guard *F* next the saw is made concave or inclined, as shown in Fig. 4.

For the purpose of providing an additional security against arm *b* and the guard thereon being accidentally forced down upon the saw-teeth, a pin, *p*, is inserted in one of a series of holes, *r*, in standard *A*, the lower edge of the pin resting against the upper edge of the arm, back of the clamping-screw.

When a closer adjustment than can be obtained with the series of holes *e* is desired, I use the slot *x*, (shown in Fig. 5,) the pin *p* in such case being passed through the arm *b*, and back of the clamping-screw, the pin resting against the inside of the slot.

The operation of my device is as follows: Standard *A* is secured to the saw table with its front curved edge, as shown, near the back of the saw. Arm *b* is then secured to the standard, the lower straight edge of part *a* being set a little higher from the table than the thickness of the thickest stock designed to be sawed, and the forward end of the arm standing just clear of the saw. Stop *j* is then adjusted and secured on rod *i*, so as to allow the forward end of guard *F* to approach as near the saw-table as the thickness of the thinnest material to be sawed. As the material to be sawed is pushed toward the edge of the saw,

if thin it passes freely under the forward end of the guard; but if the material is thicker it engages the inclined face *n*, and the guard is pushed upward in a curved path practically concentric with the saw. The distance between the guard and the saw is not changed by such upward movement. When the material has passed the guard, it again falls to the lowest point.

10 In saw-guards as heretofore constructed the guard or hood has projected downward on each side of the saw, thus coming in contact with the teeth, if pushed slightly to one side, and also hiding the saw. The guard has also
15 been so connected with the standard that in rising to admit thicker lumber it has moved farther away from the saw. Said guards have

also, so far as I am informed, not been adjustable to the peripheries of different-sized saws.

I claim as my invention—

In a saw-guard, the combination of the curved arm having a longitudinal rib on its outer surface, a curved guard having in its inner surface a groove embracing and adapted to slide upon said rib, the lug projecting from said arm, the rod secured in said lug, the stop adjustably secured to said rod, and the lug projecting from the guard, all combined and adapted to co-operate for the purposes specified.

JOSEPH A. COMER.

Witnesses:

H. P. HOOD,
V. M. HOOD.