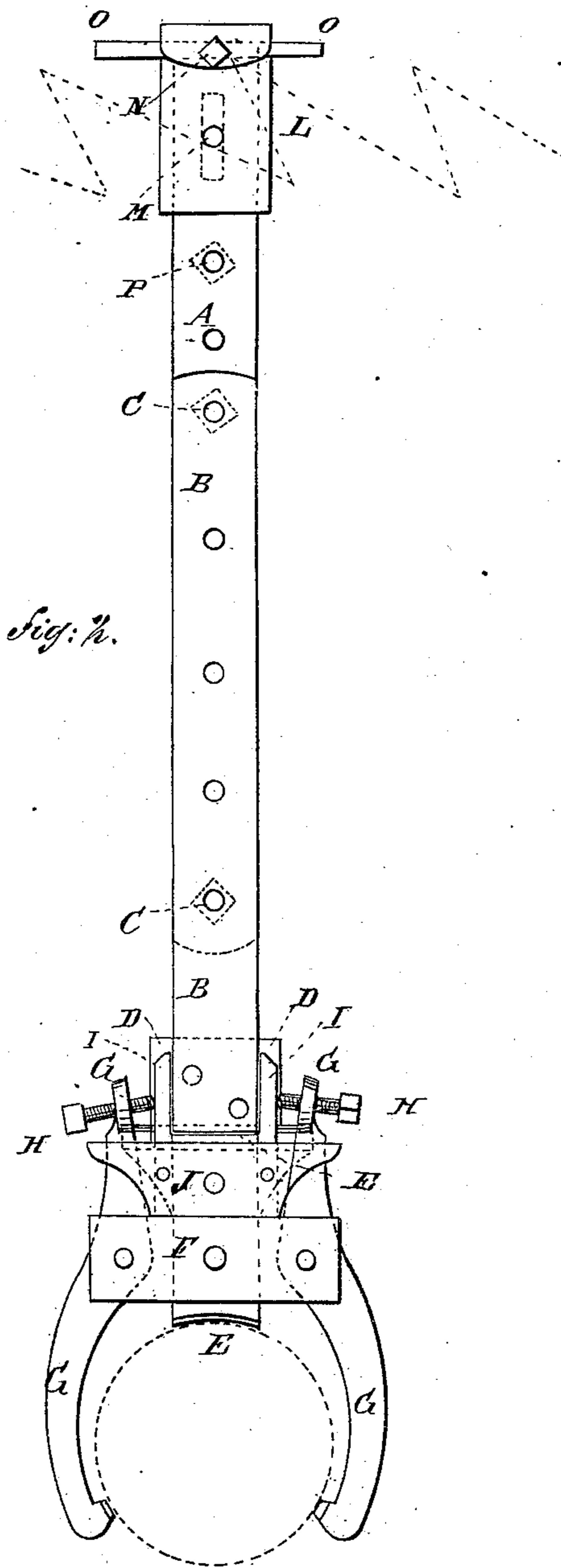
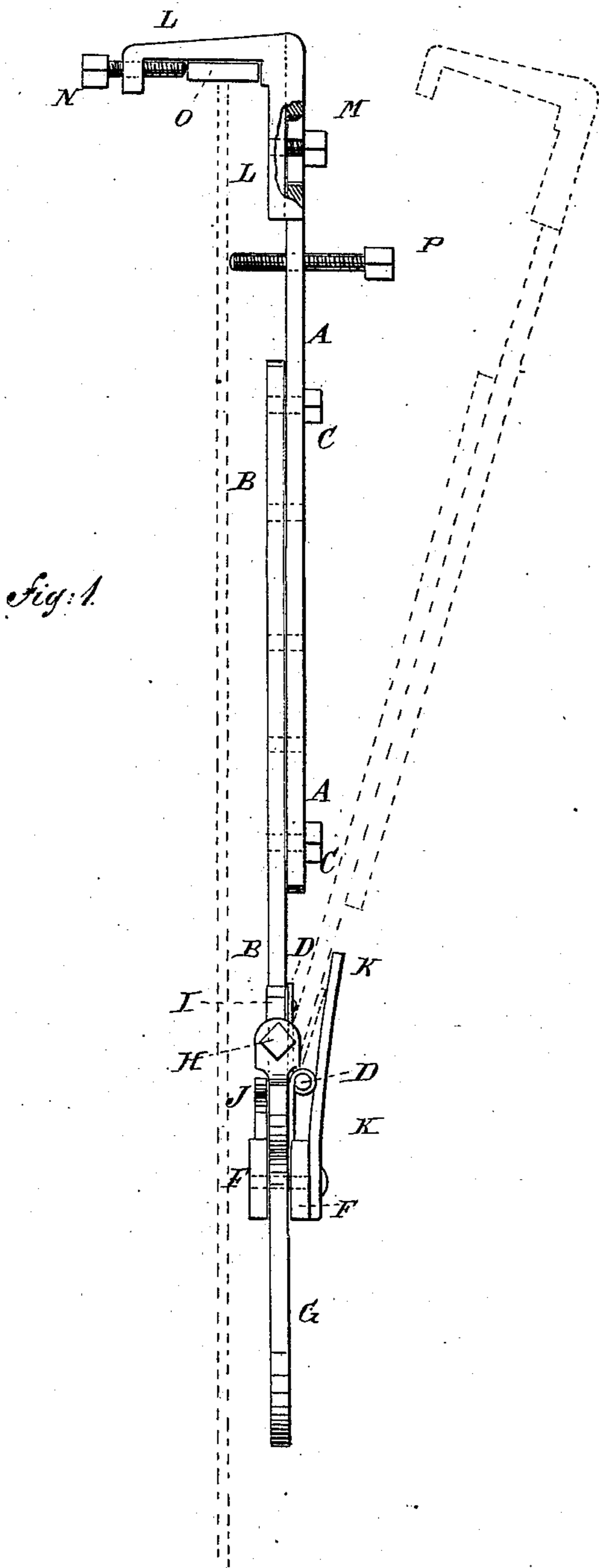


(No Model.)

A. S. PIERSON.  
Jointer for Circular Saws.

No. 237,590.

Patented Feb. 8, 1881.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

ARTHUR S. PIERSON, OF HARVARD, NEW YORK.

## JOINTER FOR CIRCULAR SAWS.

SPECIFICATION forming part of Letters Patent No. 237,590, dated February 8, 1881.

Application filed October 7, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, ARTHUR S. PIERSON, of Harvard, in the county of Delaware and State of New York, have invented a new and useful Improvement in Jointers for Circular Saws, of which the following is a specification.

Figure 1 is a side elevation of the improvement. Fig. 2 is a front elevation.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish jointers for circular saws so constructed that they may be readily adjusted to operate upon saws of different diameters, and which will bring all the teeth to a uniform length.

The invention consists in constructing a jointer for circular saws of two bars adjustably connected to allow the jointer to be adjusted to the size of the saw, and hinged to the bar and levers that connect it with the saw-mandrel, set-screws that operate the levers that grasp the mandrel, stops to strengthen the hinge against side strain and to limit the play of the hinge, an adjustable flanged angle-bar having a set-screw for holding the file and adjustably connecting it with the supporting-bars when parallel with the saw-plate, as will be hereinafter fully described.

A B are two bars the adjacent ends of which overlap each other, and have numerous holes formed through them, at equal distances apart, to receive the screws C, by which the said bars are secured to each other, so that the bars A B can be adjusted as the size of the saw may require. The lower end of the bar B is connected by a hinge, D, with the end of the short bar E.

To the opposite sides of the bar E, at a little distance from its lower end, are attached two cross-bars, F, to and between the ends of which are pivoted two levers, G. The lower arms of the levers G are curved outward and inward and have jaws formed upon the inner sides of their ends. The upper arms of the levers G have screw-holes formed through their ends to receive the screws H, the forward ends of which rest against the outer sides of two short bars, I, placed against the opposite edges of the adjacent ends of the bars B E, and secured to and between the lower leaf of the hinge D and the ends of a cross-bar, J, attached to

the upper part of the bar E. The bars I serve as stops for the upper leaf of the hinge D to strike against to prevent the bar B from swinging forward upon its hinge farther than into line with the bar E; but they are especially intended to relieve the hinge from side strain when the jointer is being operated.

To the rear cross-bar, F, is attached the lower end of a bar, K, which projects upward to overlap the lower end of the bar B, and inclines outward to serve as a stop for the bar B when swung back from the saw, as shown in dotted lines in Fig. 1, so that the said bar will always be within convenient reach.

L is an angle-bar, the lower arm of which is placed against the forward side of the upper end of the bar A, and has a screw-hole formed through it to receive the screw M that fastens it to the said bar A. The upper end of the bar A is slotted to receive the screw M, so that the bar L can be adjusted to the teeth of the saw as they wear away. The side edges of the lower arm of the angle-bar L have flanges formed upon them to rest against the side edges of the bar A, to prevent the said angle-bar L from having any lateral movement upon the said bar A. The outer end of the upper arm of the angle-bar L is bent downward at right angles, so as to be parallel with the lower arm of the said bar, and has a screw-hole formed through it to receive the screw N, the forward end of which rests against the side edge of the file or emery-plate O, to clamp the said file against the lower arm of the angle-bar L or against a shoulder formed upon the said arm. The angle-bar L thus serves as an adjustable file-holder.

P is a set-screw which passes through a screw-hole in the bar A, so that its forward end can rest against the side of the saw to stop the said bar when parallel with the saw, and thus cause the file O to rest squarely upon the saw-teeth.

The lower end of the bar E and the jaws of the levers G are sharpened to enter a ring-groove turned in the saw-mandrel, and the levers G are made of such a length that their jaws will be below the center of the mandrel, so that when the jointer has been placed upon the mandrel and the screws H screwed in to bring the jaws of the levers G into the groove

in the mandrel the said jointer cannot move outward and the file O will always be at exactly the same distance from the axis of the saw and will file all the teeth to exactly the same length.

In using the jointer it is secured to the mandrel in the manner described, the file-holder is adjusted to bring the teeth to the required length, and the outer part of the jointer is swung back and forth parallel with the plane of the saw. When the teeth or such a number of the teeth as are to be operated upon at a time have been brought to the desired length the upper part of the jointer can be swung back, as indicated in dotted lines in Fig. 1, to allow the said teeth to be conveniently filed. The jointer can only be removed from the mandrel by turning out the screws H.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A jointer for circular saws constructed substantially as herein shown and described, consisting of the adjustable bars A B, the hinge D, the bar E, the levers G, having set-screws H and jaws, the stop-bars I, the stop-plate K, and the adjustable file-holder L N, as set forth.

2. In a jointer for circular saws, the combination, with the bars A B, that carry the file-holder L N, of the bar E, the pivoted levers G, having jaws, and the set-screws H, substantially as herein shown and described, whereby the jointer can be securely connected with the saw-mandrel and held against outward movement, as set forth.

3. In a jointer for circular saws, the combi-

nation, with the bars A B, that carry the file-holder L N, and the bar E, levers G, and set-screws H, that connect the jointer with the saw-mandrel, of the hinge D, substantially as herein shown and described, whereby the outer part of the jointer can be swung back from the saw-teeth without detaching the jointer from the mandrel, as set forth.

4. In a jointer for circular saws, the combination, with the bars B E and their connecting-hinge D, and the screws H, and the levers G, of the bars I, substantially as herein shown and described, whereby the hinge D is held against lateral strain, as set forth.

5. In a jointer for circular saws, the combination, with the bars B E and their connecting-hinge D, of the stop-plate K, substantially as herein shown and described, whereby the backward movement of the upper part of the jointer is limited, as set forth.

6. In a saw-jointer, the combination, with the slotted bar A, of the angle-bar L, having flanges upon its lower arm, and the set-screw N, substantially as herein shown and described, whereby the file is securely held and adjustably connected with the supporting-bars, as set forth.

7. In a saw-jointer, the combination, with the adjustable hinged bars A B, that carry the file-holder L N, of the set-screw P, substantially as herein shown and described, whereby the bars A B are stopped when parallel with the saw-plate, as set forth.

ARTHUR S. PIERSON.

Witnesses:

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