(No Model.)

R. E. KIDDER.

GUIDE FOR SAW BENCHES.

No. 456,380. Patented July 21, 1891.

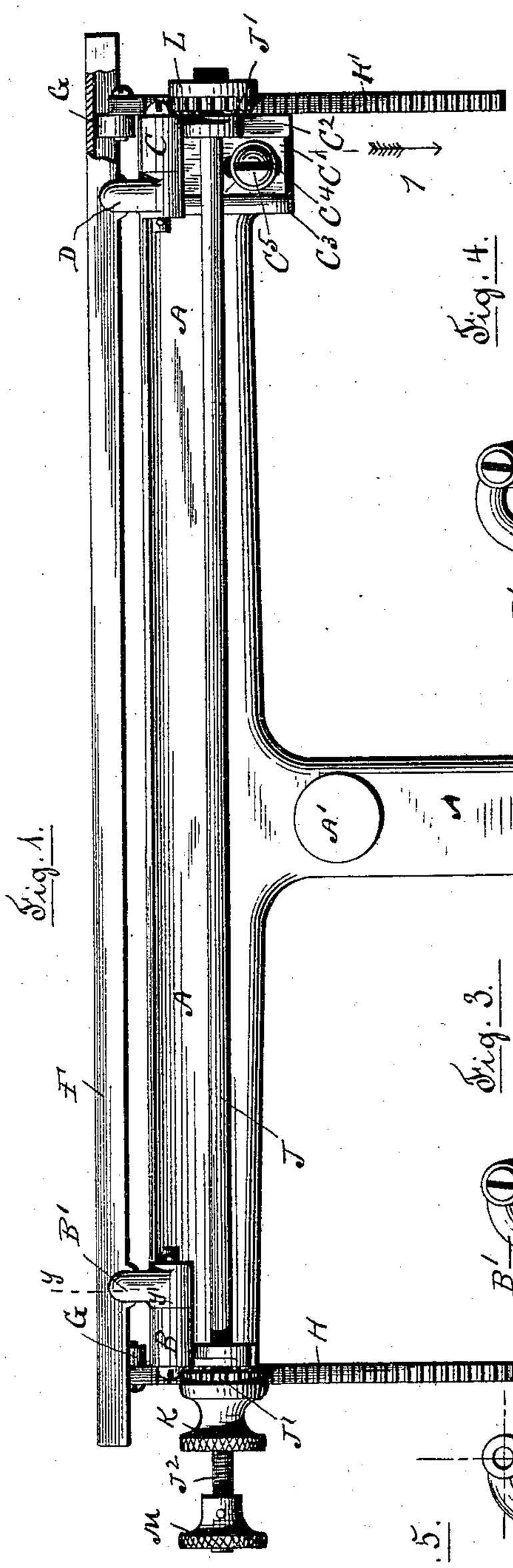

Fig. 1.

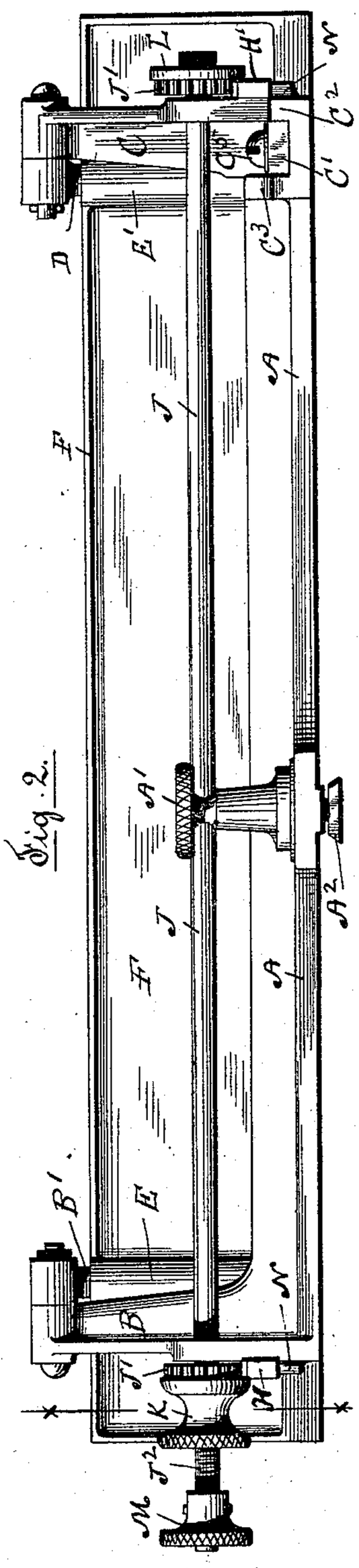

Fig. 2.

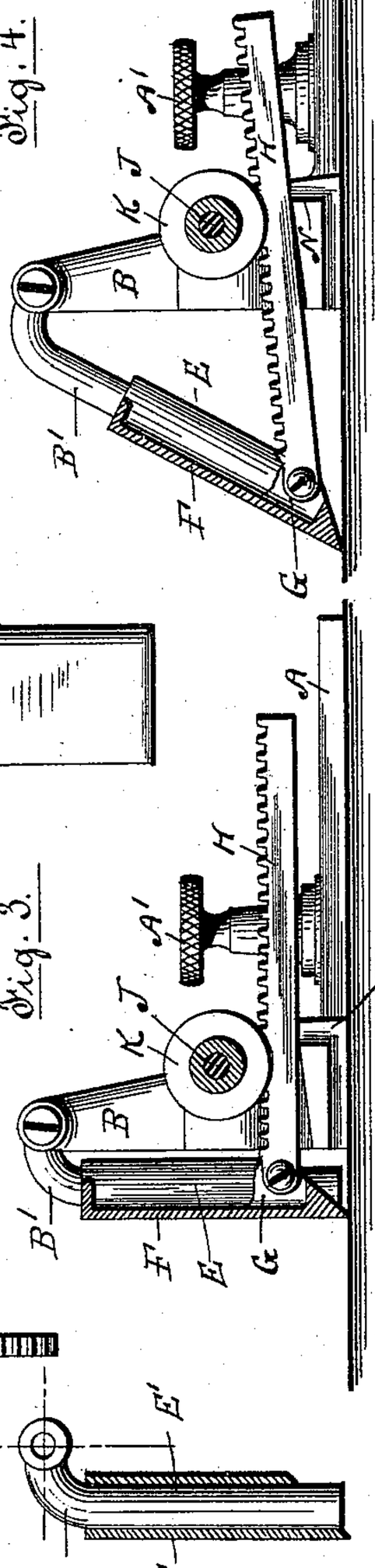

Fig. 3.

Fig. 4.

Fig. 5.

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GUIDE FOR SAW-BENCHES.

SPECIFICATION forming part of Letters Patent No. 456,380, dated July 21, 1891.

Application filed October 12, 1888. Serial No. 287,944. (No model.)

To all whom it may concern:

Be it known that I, RICHARD E. KIDDER, a citizen of the United States, and a resident of Worcester, in the county of Worcester and State of Massachusetts, have invented a new and useful Improvement in Guides for Saw-Benches, of which the following is a specification, reference being had to the accompanying drawings, forming a part of the same, and in which—

Figure 1 represents a plan view of my improved guide. Fig. 2 is an elevation of the same. Figs. 3 and 4 are sectional views on line X X, Fig. 2, and showing the guide plate or fence in different positions; and Fig. 5 is a sectional view of the guide plate or fence with one of the pivoted pins, the section being shown on line Y Y, Fig. 1.

Similar letters refer to similar parts in the several figures

My invention relates to an improved side guide for saw-benches and similar wood-working machines parallel with the plane of the saw and presenting a guide plate or fence against which the work is moved in the operation of sawing, the fence being capable of being placed at an angle, as may be desired, by the character of the work; and my invention consists in providing means whereby the fence may be varied in position, and also in the means for fastening the fence in any desired position, as hereinafter described, and specifically set forth in the claims.

The guide illustrated in the accompanying drawings is adapted for use upon a saw-bench provided with a transverse slot in its upper surface, by means of which the guide is adjustably attached to the bench in the same manner as the guides now in common use.

Referring to the drawings, A denotes the plate resting upon the upper surface of the saw-bench, to which it is attached by means of the bolt A′ and block A^2, which enters the transverse slot in the saw-bench. This method of attaching the guide to the saw-bench is the well-known method now in general use, and therefore does not require any special description or detailed illustration. Projecting upwardly from the plate A, and preferably formed integrally with it, is a post B, to the upper end of which is hinged the pin B′. At the opposite end of the plate A is a post C, provided with a foot C′, placed between the ribs C^2 C^3, which extend transversely across the plate A. The foot C′ has a slot C^4, through which a screw C^5 passes, by which the foot is attached to the plate A. To the upper end of the post C a pin D, similar to the pin B′, is hinged. Both of the pins B′ and D enter sockets E E′ in a plate F, which forms the guide plate or fence against which the work rests in the operation of sawing.

G G are lugs upon the plate F, to which are pivoted the rack-bars H H′, extending rearward and upon the outer sides of the posts B C. In the posts B C is journaled a rod J, capable of sliding lengthwise in the posts and having the pinions J′ J′ attached.

One end of the rod J is provided with a screw-thread J^2 for a short distance and carries a milled nut K. Attached to one end of the rod J is a flange L, and at the opposite end is a milled knob M, by which the rod is turned for the purpose of sliding the rack-bars H H′ and carrying the lower edge of the fence F out from the posts, so it will stand obliquely to the posts, as shown in Fig. 4. As the lower edge of the plate F is carried out the plate slides down upon the hinged pins B′ and D, with the lower edge of the plate F resting upon the upper surface of the saw-bench. Lugs N N project from the outside of the posts B C to form supports for the rack-bars H H′ as they are moved by the pinions J′. When the plate F has been placed either at right angles with the surface of the saw-bench, as shown in Fig. 3, or at any desired angle with it, the nut K is screwed up against the side of the rack-bar H, at the same time drawing the flange L against the outer side of the rack-bar H′, clamping the rack-bars H H′ against the posts B C and securely holding the fence F from moving.

For ordinary use the fence F should be placed in a line parallel with the plane of the saw; but in case it is desired to allow any "clearance" as the work passes the saw it is accomplished by moving the post C slightly in the direction of the arrow 1, Fig. 1, and securely holding it in place by means of the screw C^5.

I am aware that side guides for saw-benches have been in use in which the position of the fence could be varied from that of a right

angle with the saw-bench. Such I do not claim; but

What I do claim, and desire to secure by Letters Patent, is—

1. In a side guide for saw-benches, the combination of a plate capable of adjustable attachment to the saw-bench and provided with posts, pins hinged to said posts and sliding in sockets in the guide plate or fence, a guide plate or fence provided with sockets to receive said hinged pins, and means, substantially as described, whereby the angle of said fence is varied relative to the saw-bench, substantially as described.

2. In a side guide for saw-benches, the combination of a plate having vertical posts, pins hinged to said posts and sliding in sockets in the guide plate or fence, a fence provided with sockets to receive said pins, rack-bars hinged to said fence, and actuating-pinions whereby said rack-bars are moved and the angle of the fence varied, substantially as described.

3. The combination of a plate having vertical posts, pins hinged to said posts and sliding in sockets in the guide plate or fence, a guide plate or fence provided with sockets to receive said pins, a rod journaled on said posts and carrying pinions engaging rack-bars, rack-bars pivoted to said guide plate or fence, and lugs forming supports for said rack-bars, substantially as described.

4. In a guide for saw-benches, the combination of a plate having vertical posts, a fence hinged to said posts, rack-bars hinged to said fence, a rod journaled in said posts and capable of a sliding motion therein, pinions attached to said rod for actuating the rack-bars, and a nut carried upon said rod, whereby one of said rack-bars is clamped and held from moving, substantially as described.

5. In a guide for saw-benches, the combination of a plate having vertical posts, a fence hinged to said posts, rack-bars hinged to said fence, a rod journaled in said posts capable of sliding therein, a flange attached to said rod and bearing against one of said rack-bars, and a nut carried upon said rod and bearing against the opposite of said rack-bars, whereby they are clamped and held from moving, substantially as described.

6. In a guide for saw-benches, the combination of a supporting-plate, a vertical fixed post attached to said plate, an adjustable post capable of a transverse adjustment on said plate, and a guide plate or fence hinged at one end to said fixed post and hinged at its opposite end to said adjustable post, whereby one end of said guide plate or fence can be moved toward or away from the center of the saw-bench, bringing said guide plate or fence either parallel with or obliquely to the line of the saw, substantially as described.

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Witnesses:

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