(No Model.)

C. F. LEOPOLD.

SAW CLAMP.

No. 377,946. Patented Feb. 14, 1888.

Fig. 1.

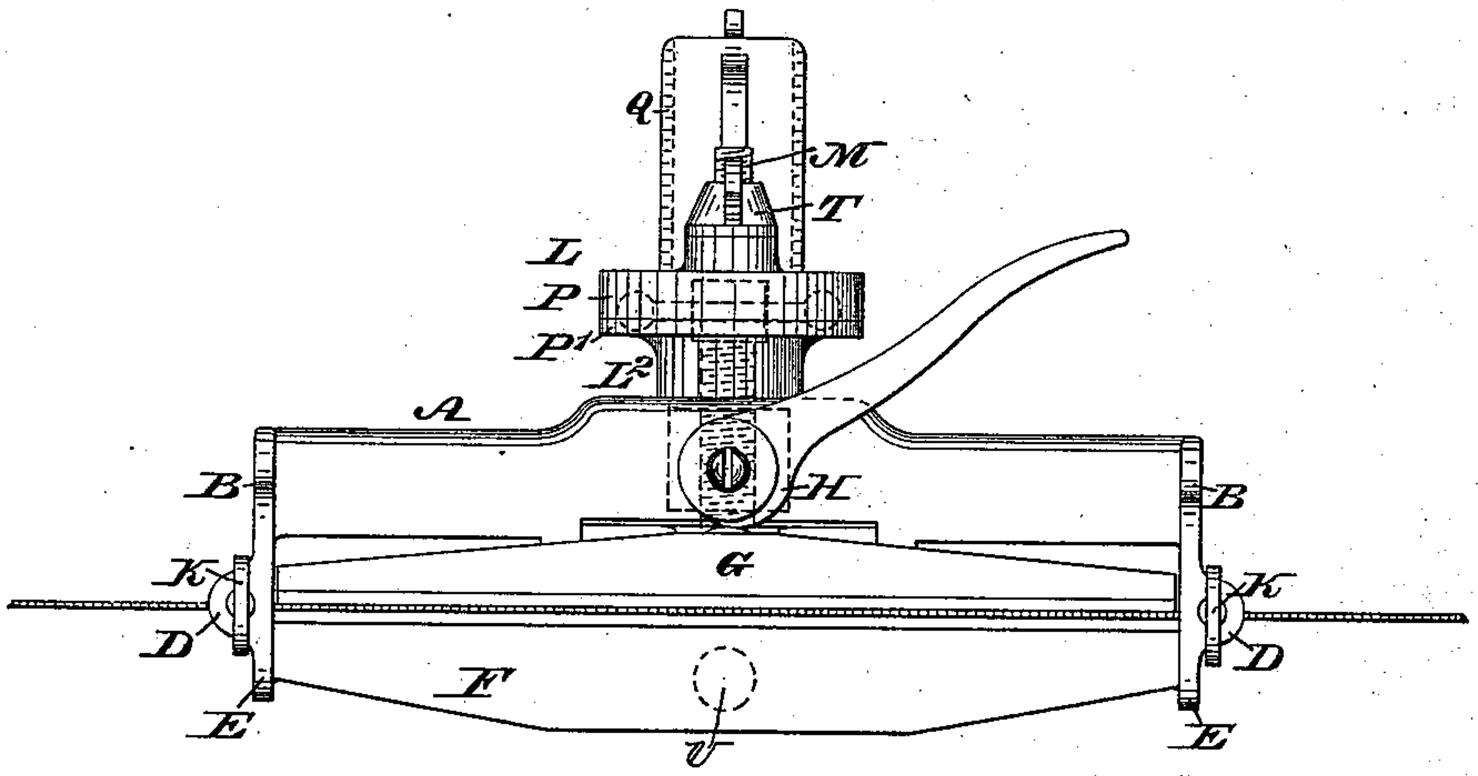

Fig. 2.

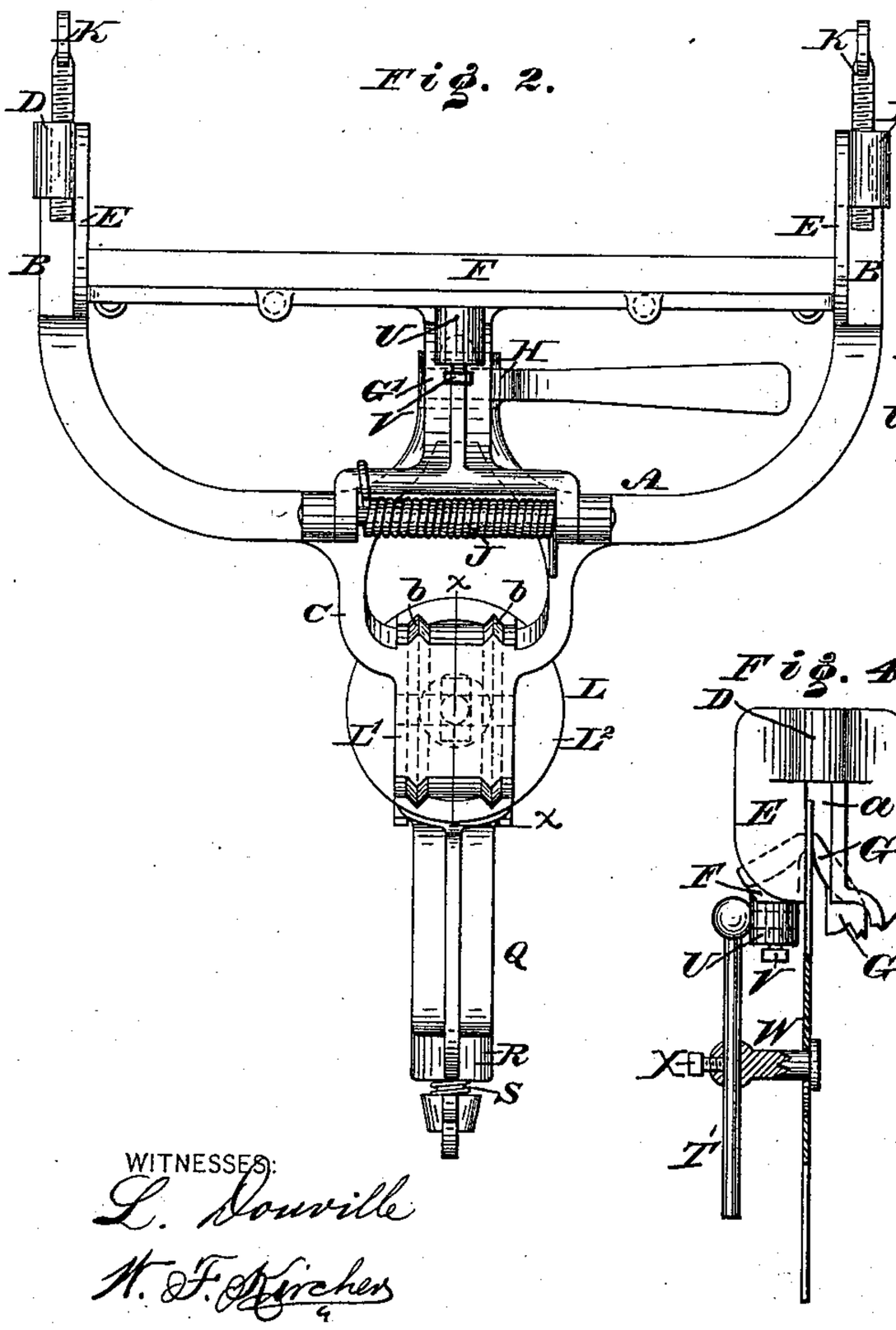

Fig. 3.

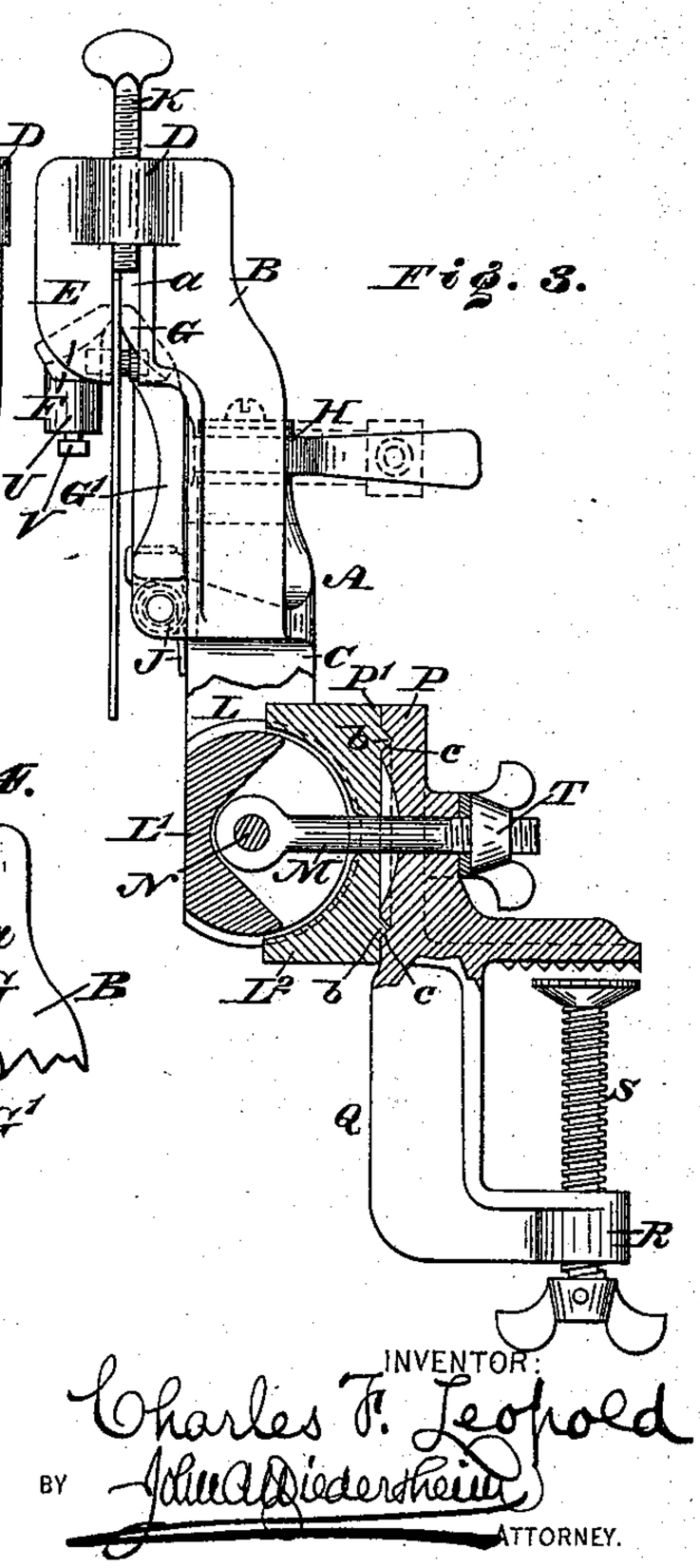

Fig. 4.

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CHARLES F. LEOPOLD, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THE AMERICAN MANUFACTURING COMPANY, OF SAME PLACE.

SAW-CLAMP.

SPECIFICATION forming part of Letters Patent No. 377,946, dated February 14, 1888.

Application filed October 12, 1887. Serial No. 252,157. (No model.)

To all whom it may concern:

Be it known that I, CHARLES F. LEOPOLD, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Saw-Clamps, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 represents a top or plan view of a saw-clamp embodying my invention. Fig. 2 represents a front elevation thereof. Fig. 3 represents a partial side elevation and partial vertical section in line *x x*, Fig. 2. Fig. 4 represents a clamp for use in combination with the device for setting a circular saw.

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

My invention consists of a saw-clamp having clamping-jaws set out or overhanging in such manner that a space exists below the same to admit saws of different widths.

It also consists of the employment of soft-metal screws for holding the saw without injury to the teeth thereof.

It further consists of a saw-clamp having means whereby the clamp may be set at various angles.

Referring to the drawings, A represents the frame of a saw-clamp, having side pieces, B, which are joined at bottom by a central piece, C. At the top of the side pieces, B, are bosses D, and from the sides of the same depend the pieces E, to which is connected a stationary jaw, F, it being noticed that a space, *a*, exists between the side pieces, B, and depending pieces E, and said pieces B E, the jaw F, and the central pieces, C, are formed integral, preferably of cast metal.

G represents a movable jaw, which, as will be seen, is parallel with the stationary jaw F, the two jaws being adapted to receive between them the saw to be clamped for filing, sharpening, and other purposes. The movable jaw is pivoted to the piece C and forced toward the stationary jaw by means of an eccentric, H, which is pivoted to the piece C and has its head in contact with the supporting-piece G′ of the jaw G. The movable jaw is withdrawn from the stationary jaw by means of a spring, J, which is connected with the said jaw and the piece C in any suitable manner. In the bosses D are screws K for adjusting the position of the saw when applied to the jaws.

It will be seen that the stationary jaw is set out from the arms B, or overhanging in such manner that a space exists below the point where the two jaws meet, by which provision there is no obstruction to the insertion of a saw into the space *a*. Consequently saws of various widths may be clamped between the jaws, as their backs are not liable to interfere with or be interfered with by any portion of the clamp.

When a saw is in position, the eccentric H is operated and the jaws are closed, thus clamping the saw between them, and when the eccentric is operated in the opposite direction the jaws are released, the movable jaw being thrown back by the action of the spring J.

The screws K are made of lead or other soft metal, so that their points do not injure the teeth of the saw, against which they abut.

L represents a knuckle-joint which is formed of the knuckles L′ L², the knuckle L′ being cast with the central piece, C, of the frame A, the knuckle L² being a separate piece. The two knuckles are connected by an eyebolt, M, whose head is fitted on a screw or pin, N, in the knuckle L′, said bolt M being adapted to turn on said pin N.

The bolt M has its free end passed through the knuckle L² and a disk, P, with which is cast a clamping-arm, Q, and a boss, R, the latter having fitted to it a screw, S, whereby the saw-clamp may be secured to a table, bench, &c., it being noticed that the disk P is fitted to a similarly-shaped disk, P′, on the outer side of the knuckle L², and rotatable thereon, with the bolt M as its axis, while the knuckle L² is rotatable on the knuckle L′, with the pin N as its axis, by which provision the frame A may be moved in planes at a right angle to each other, and the saw-clamp thus adjusted in various angles, according to requirements.

The bolt M carries at its outer end a nut, T, whereby, when the adjustment of the angle of the clamp is accomplished, said nut is tightened and the disks P P′ and knuckles L′ L² are firmly clamped together.

In order to prevent lateral movements of the disk and knuckles, the contiguous faces of said parts are tongued and grooved, as at *b c*.

For circular saws I employ a vertical rod, T′, which is connected at its upper end with an ear or boss, U, the latter being cast with or otherwise secured to the stationary jaw F or frame of the device, a screw, V, being employed in the present case for connecting said upper end of the rod with said boss U. A journal, W, is fitted on the rod T′, so as to be vertically adjusted thereon, and is provided with a set screw, X, for holding said journal in adjusted position, it being seen that the circular saw is supported on the journal and may be rotated thereon as required, said saw being afterward clamped between the jaws G F.

In lieu of the eccentric H for tightening the jaw G against the jaw F, I may employ a screw, as shown by the dotted lines, Figs. 1 and 3.

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

1. A saw-clamp having a frame consisting of the central piece, C, the side pieces or uprights, B, the bosses D, and the depending pieces E, forming the space *a*, with the side pieces, B, and a stationary jaw, F, connected to said depending pieces E, said parts being combined substantially as described.

2. In a saw-clamp, a frame with central piece, C, and uprights B, the depending pieces E, the stationary jaw F, secured to said depending pieces E, and a movable jaw, G, pivoted to central piece, C, and means, substantially as described, for operating said movable jaw, said parts being combined substantially as and for the purpose set forth.

3. In a saw-clamp, a frame with central piece, C, uprights B, bosses D, with screws K, the depending pieces E, forming space *a* between them and the sides B, the overhanging stationary jaw F, and the movable jaw G, having supporting-piece G′, pivoted to piece C, and mechanism, substantially as described, for operating said movable jaw, said parts being combined substantially as and for the purpose set forth.

4. In a saw-clamp, the frame A, having a stationary and a movable jaw connected thereto, and having the knuckle-joint L′ on the central piece, C, thereof, in combination with the knuckle-joint L^2, the clamping-arm Q, with a boss and screw S, the eyebolt M, fitted on a pin of the knuckle L′, and the nut T, said parts being combined substantially as and for the purpose set forth.

5. In a saw-clamp, a frame provided with a stationary and a movable jaw, in combination with the sleeve U, secured to said stationary jaw, the rod T′, connected to said sleeve, and the journal W, fitted on said rod and provided with the screw X, said parts being combined substantially as and for the purpose set forth.

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