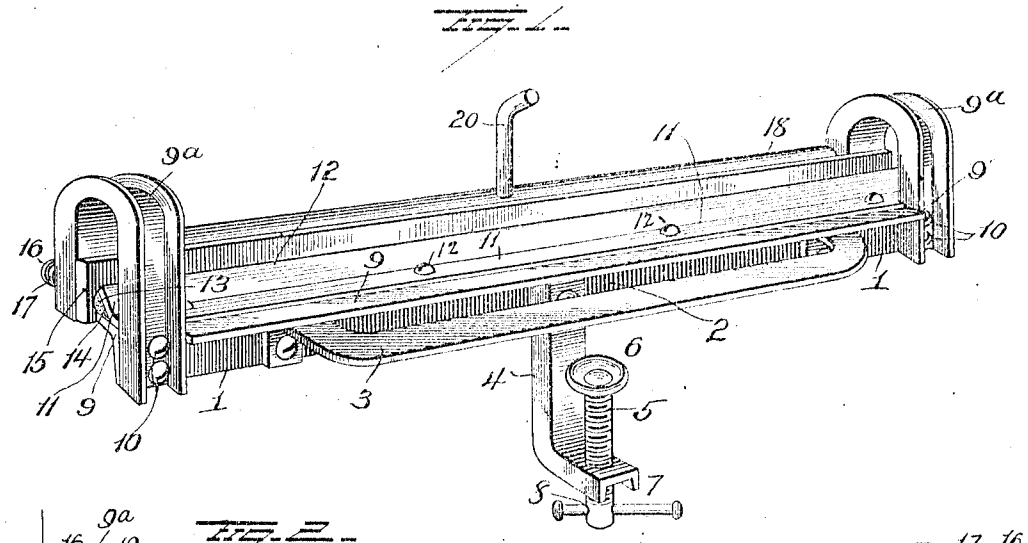
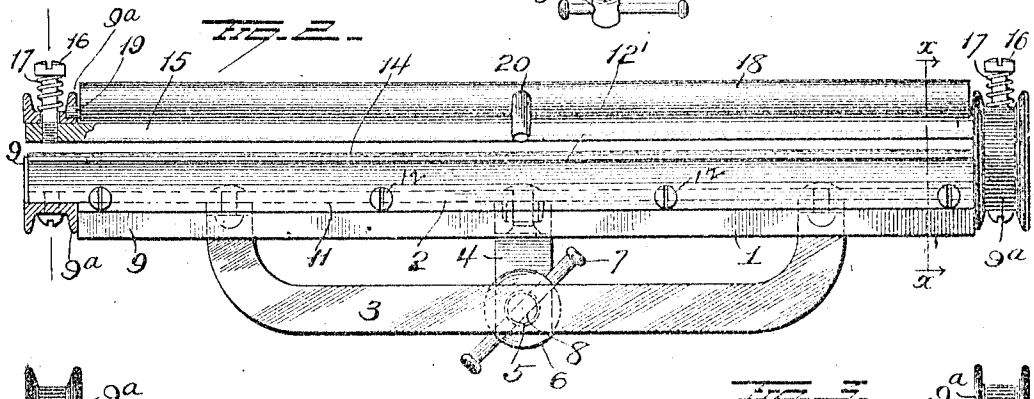
J. S. DIKEMAN.

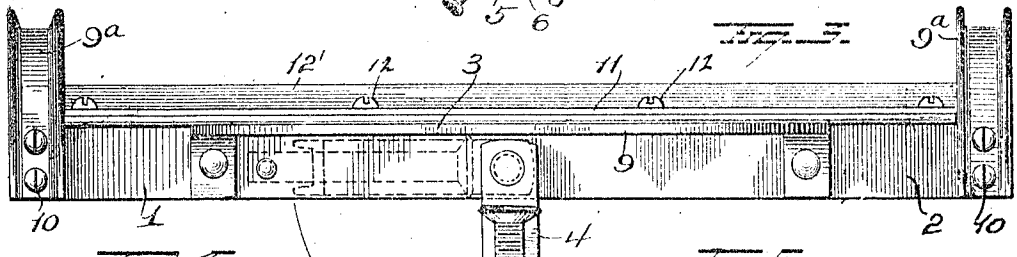
SAW CLAMP.

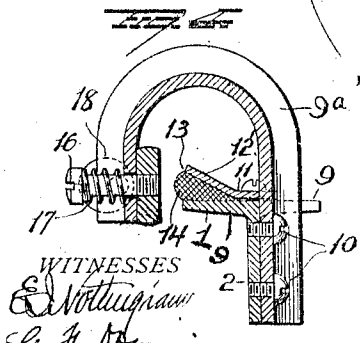
APPLICATION FILED DEC. 8, 1911.

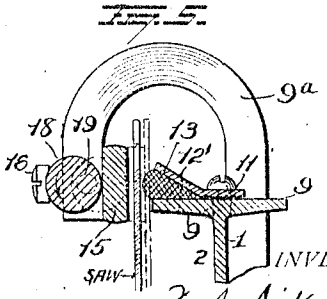
1,035,166. Patented Aug. 13, 1912.











WITNESSES

E. Nottingham

G. F. Downing

INVENTOR

J. S. Dikeman

By H. A. Seymour Attorney

UNITED STATES PATENT OFFICE.

JOSEPH S. DIKEMAN, OF NORWALK, CONNECTICUT, ASSIGNOR TO THE DIKEMAN MANUFACTURING COMPANY, OF NORWALK, CONNECTICUT.

SAW-CLAMP.

1,035,166. Specification of Letters Patent. Patented Aug. 13, 1912.

Application filed December 8, 1911. Serial No. 664,632.

To all whom it may concern:

Be it known that I, JOSEPH S. DIKEMAN, a citizen of the United States, residing at Norwalk, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Saw-Clamps; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in saw clamps, the object of the invention being to provide a device of this character which will be compact, strong and durable in its construction, of light weight and capable of being folded and packed in small compass, and which will be adapted to clamp and securely hold equally firm saw blades of varying thicknesses, and by which the filing of saw blades will be rendered a practically noiseless operation.

With these objects in view my invention consists in certain features of construction and combinations of parts which will be hereinafter described and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in perspective of my improvement. Fig. 2 is a plan view. Fig. 3 is a view in rear elevation. Fig. 4 is a transverse section taken through one of the end arches of the device, and Fig. 5 is a transverse section on line *x*—*x* of Fig. 2.

1 represents the supporting frame of the device which is made of a T steel bar to the web of which is riveted the depending ends of an outwardly projecting bracket 3. To the web 2 midway of the bracket, is pivoted the upper end of the folding standard 4 of a clamping jaw, the standard being made of a steel channel bar.

5 is a clamping screw which passes through and engages the screw threaded outwardly projecting end of the standard 4. The upper end of clamp screw 5 is provided with an enlarged flat head 6, while its lower end is provided with a handle 7 which is mounted to slide in a hole 8 formed in the lower end of the clamp screw. The bracket and clamping screw enable the device to be detachably secured to the edge of a bench, table or other support.

The upper flange 9 of the main frame 1 is cut away at its opposite ends for the reception and attachment of the arch bars 9ª, which are made of channeled steel and are secured in place by screws 10 or they may be fastened to the main frame in any other desired manner. Upon the upper surface of the flange 9 is secured a steel clamping plate 11 by means of screws 12. The outer edge 12′ of clamping plate 11 is made to flare upwardly to form a wedge shaped space 13 between plate 11 and flange 9 within which is firmly clamped a yielding pad 14 which is preferably made of rubber and the outer surface of which projects slightly beyond the outer edges of flange 9 and clamping plate 11.

15 represents a yielding clamp bar the opposite ends of which are screw threaded for the engagement therewith of screws 16, which pass through holes in the arch bars. Upon the outer end of each screw is placed a spiral spring 17, which springs serve to move the clamp bar 4 away from the rubber pad 14.

18 is a cam locking bar the opposite ends of which are each provided with a journal 19 which is located at one side of the center of the bar, and is mounted in a bearing formed in the arch bar. This bar is provided with a handle 20 by means of which it is partly rotated. The handle 20 on being moved operates to partly rotate the locking bar and cause it to engage and depress the clamp bar and force it against the saw blade, one face of which rests against the rubber pad as indicated in dotted lines in Fig. 5. The clamp bar 15 is made of sufficient width to insure ample strength and rigidity and an extended clamping surface on the saw blade.

The frame work being formed of T steel bar and of steel channel bars is of extremely light weight, but is strong and rigid and capable of withstanding the strains imposed upon it without liability of being bent or flexed.

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

1. In a saw clamp, a main frame formed of a steel bar having a horizontal flange and a vertical web, the flange being cut away at its ends on one side of the web, and steel channel bar arches secured to the vertical web at the cut away portions of the flange, substantially as set forth.

2. In a saw clamp, a main frame formed of a T-shaped steel bar, a yielding strip supported upon the horizontal flange of the main frame and projecting beyond its inner edge in a position to engage the saw and form a support for the latter, and a clamping plate secured to said flange and serving to secure the yielding strip in place.

3. In a saw clamp, the combination with a main frame provided with arch bars and a rubber strip secured to the main frame, of a yielding clamp bar mounted on guides supported by the arch bars, and a cam locking bar mounted to engage the rear face of the clamp bar, substantially as set forth.

4. In a saw clamp, the combination of a supporting frame or bar, arched bars secured thereto near its ends, a clamping plate having an outwardly flaring edge and secured to the upper surface of the supporting frame or bar, a yielding strip secured between said supporting frame and plate, and means carried by the free ends of the arched bars for clamping a saw against the yielding strip.

5. In a saw clamp, the combination with the main frame provided with a yielding strip extending its entire length and having arch bars at its ends, of a clamp bar supported by guides mounted in the arch bars, springs for retracting the clamp bar, and a cam locking bar adapted to engage the clamp bar throughout its length.

6. The combination of a main frame provided with a horizontal flange, a rubber strip clamped to said flange and projecting beyond its inner edge, arched bars secured to said main frame near the ends of the latter, a yielding clamping bar carried by said arched bars adjacent the free ends of the latter, the said clamping bar being located opposite the rubber strip, and means for forcing the clamp toward the rubber strip.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.

JOSEPH S. DIKEMAN.

Witnesses:
FRANK W. HADLEY,
GEO. H. HADLEY.