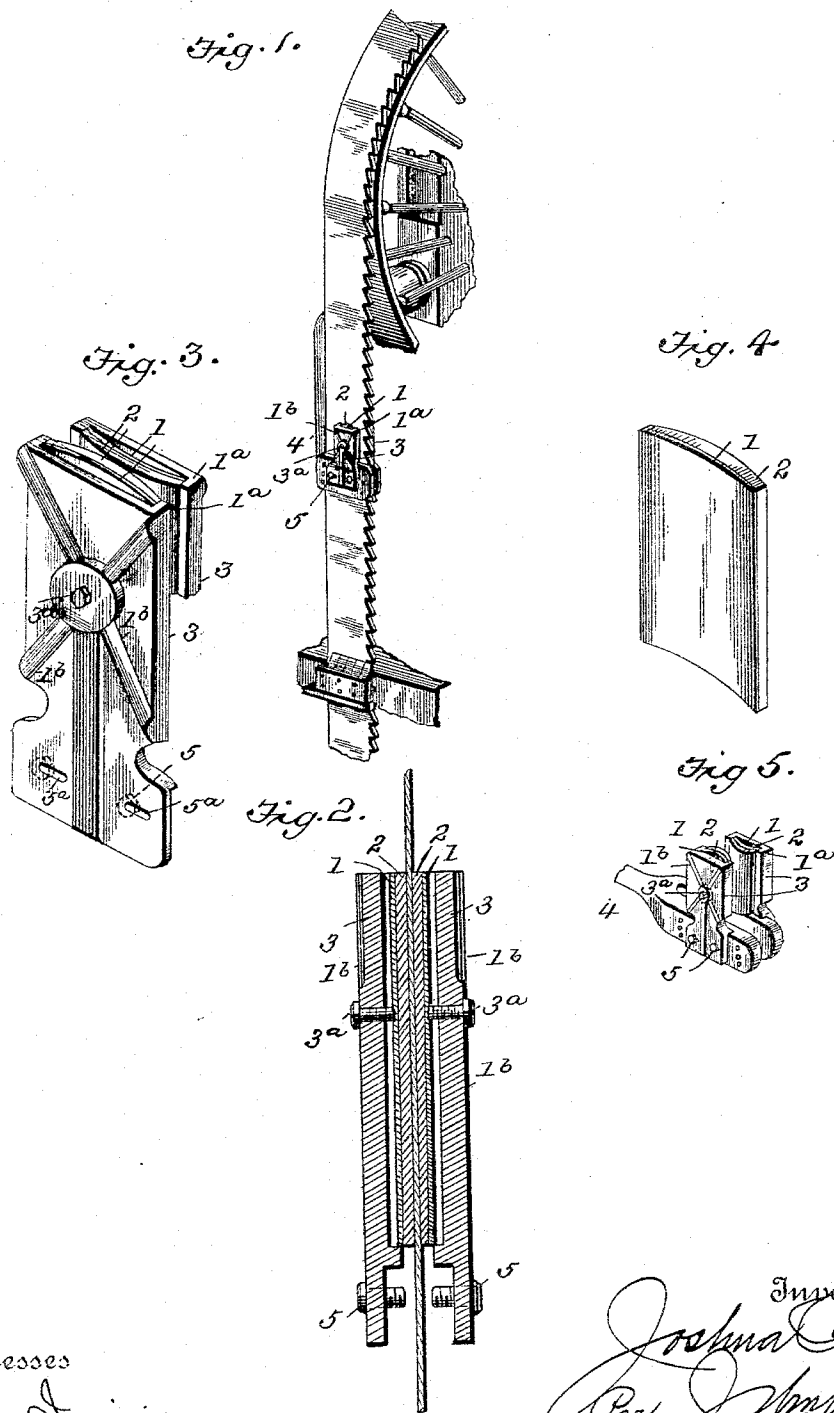


(No Model.)

J. OLDHAM.
BAND SAW.

No. 531,959.

Patented Jan. 1, 1895.



Witnesses

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UNITED STATES PATENT OFFICE.

JOSHUA OLDHAM, OF BROOKLYN, NEW YORK.

BAND-SAW.

SPECIFICATION forming part of Letters Patent No. 531,959, dated January 1, 1895.

Application filed July 24, 1894. Serial No. 518,458. (No model.)

To all whom it may concern:

Be it known that I, JOSHUA OLDHAM, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Band-Saws; 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, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in band saws, and has for its object to provide for creating a greater or less amount of friction on the plain or smooth surface or blade of the same, to give the saw a compensating "loose" tension to prevent the tendency of the saw to crack from the constantly bending and unbending action thereof as it is carried around its driving and bearing pulleys, and to provide for effectually keeping the saw clean, and to these ends the invention consists of the employment of an adjustable and flexible friction-producing appliance adapted to be adjusted so as to compass a greater or less extent of the transverse area of the saw or blade and be brought into frictional contact therewith, substantially as hereinafter more fully disclosed and pointed out in the claims.

In the accompanying drawings, Figure 1 is a broken perspective view showing the invention adapted for use, a pad being applied to each side of the saw-blade. Fig. 2 is a vertical section thereof. Fig. 3 is an enlarged perspective view of the same. Fig. 4 is a similar detailed view of one of the pads, proper, and its holder or bracket. Fig. 5 is a view, showing the invention, attached to the guide-arm instead of to the guide as in Fig. 1, the guide being removed.

In the embodiment of my invention, I construct the appliance or pad of a back-plate or backing 1 and the pad, proper, 2, and support the same adjustably by a central set-screw 3^a, in a holder or bracket 3, itself, supported, and laterally adjustable, upon the saw-guide, or upon the saw-guide arm 4, by set screws 5 working in slots 5^a in said bracket, and so ar-

ranged as to bring the appliance or pad close to the saw.

The back-plate or backing holder has a raised surface or flange 1^a around its edge forming a kind of seat for the reception of the back-plate or backing 1 which is set therein, and upon and with the rear side of this bracket or holder may be cast diagonal bracing ribs or ridges 1^b converging toward the center of said back-plate.

The pad, proper, 2, rectangular in its general contour, may be of solid or sheet rubber, leather, cloth or felt, which may or may not have a covering of emery or any other friction-producing material, and is caused to assume a convex or rounded impinging surface or face by the convexity of the backing of the pad, said backing being of tempered steel or other metal to provide for varying, as it is brought under greater or less pressure of the set-screw 3^a, its pressure upon the saw or blade.

The screws and slots 5 5^a provide for the lateral adjustment of the appliance or pad according to the extent of the transverse area of the saw it may be desired to compass. The saw is thus caused to work more or less "loose" according to the tensile strain and the gage of the saw to produce a tension in the saw while at work and avoid the tendency of the saw to crack from the constantly bending and unbending thereof in its movement around the driving and bearing pulleys, and to effectually keep the saw clean, and by the friction of the pad, generating warmth, an open tension of any desired looseness may be produced and applied to any particular point of contact, producing such a nicety of equilibrium and expansion that the cutting edge of the saw will work in a continuous straight line, enabling the operator to use a much thinner saw than is by the present method possible.

By the aid of this invention, a very thin saw blade may be used, effecting a great saving in the cut, by reason of the smallness of the kerf and enabling any band saw blade to which it may be applied to take a quicker feed.

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

1. In a band-saw, the combination of a me-

tallic, semi-elliptic or convexed backing having a correspondingly shaped pad, and a holder or bracket therefor provided with a central adjusting screw engaging the concaved side of said backing, substantially as set forth:

2. In a band-saw, the combination of a metallic, semi-elliptic or convexed backing having a correspondingly shaped pad and a holder therefor provided with an adjusting

screw engaging the concaved side of said backing, said holder or bracket also having laterally adjusting screws, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JOSHUA OLDHAM.

Witnesses:

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CHARLES F. AUKAMP.