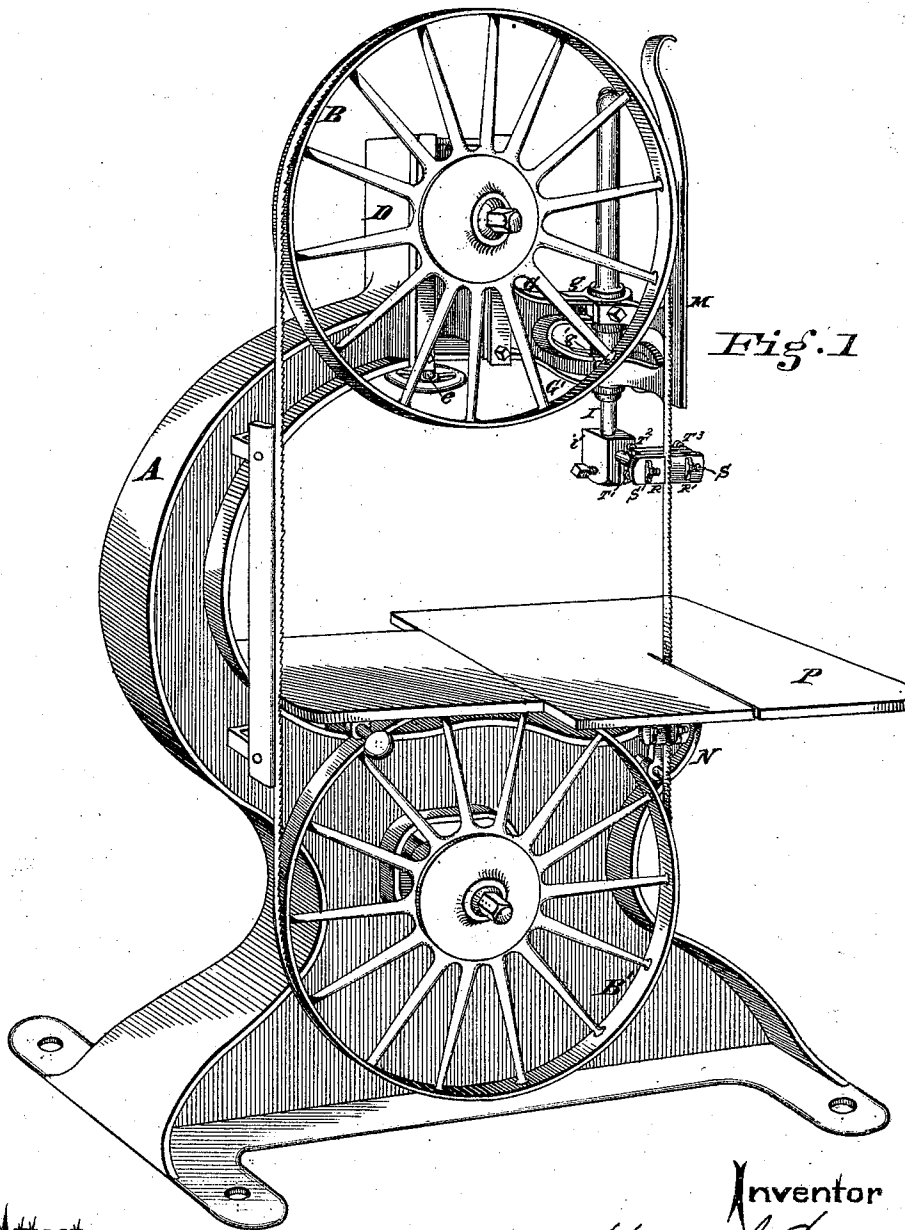


3 Sheets—Sheet 1.

H. J. CORDESMAN, Jr.
BAND SAWING MACHINE.

No. 177,622.

Patented May 23, 1876.



Attest

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Fig. 2

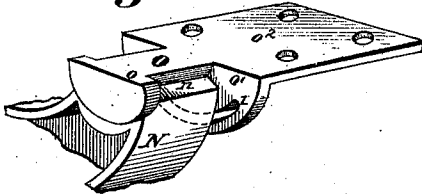


Fig. 4

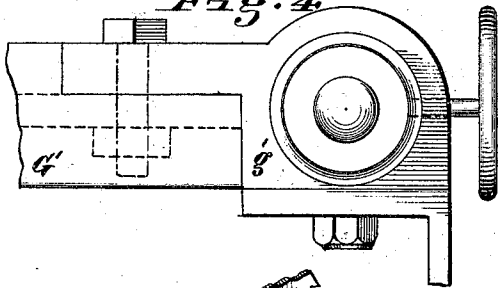


Fig. 5

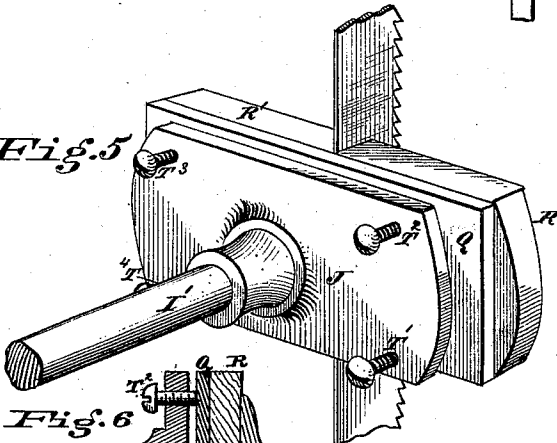


Fig. 6

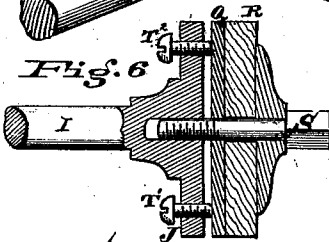
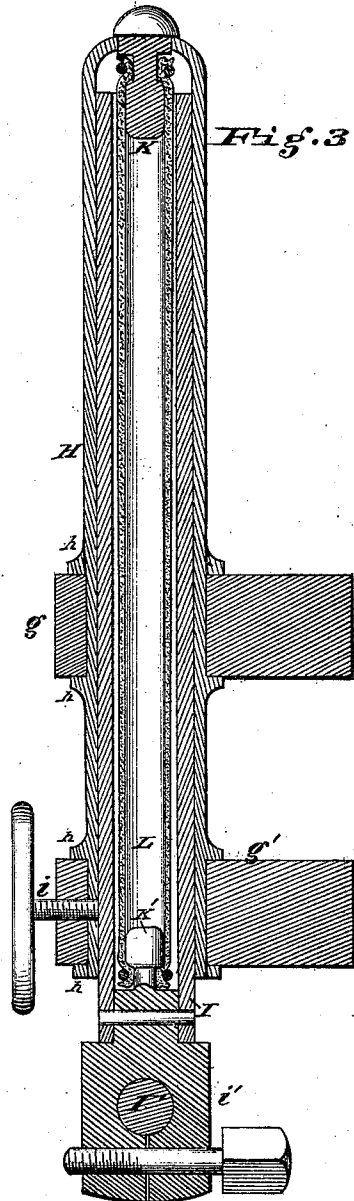


Fig. 3



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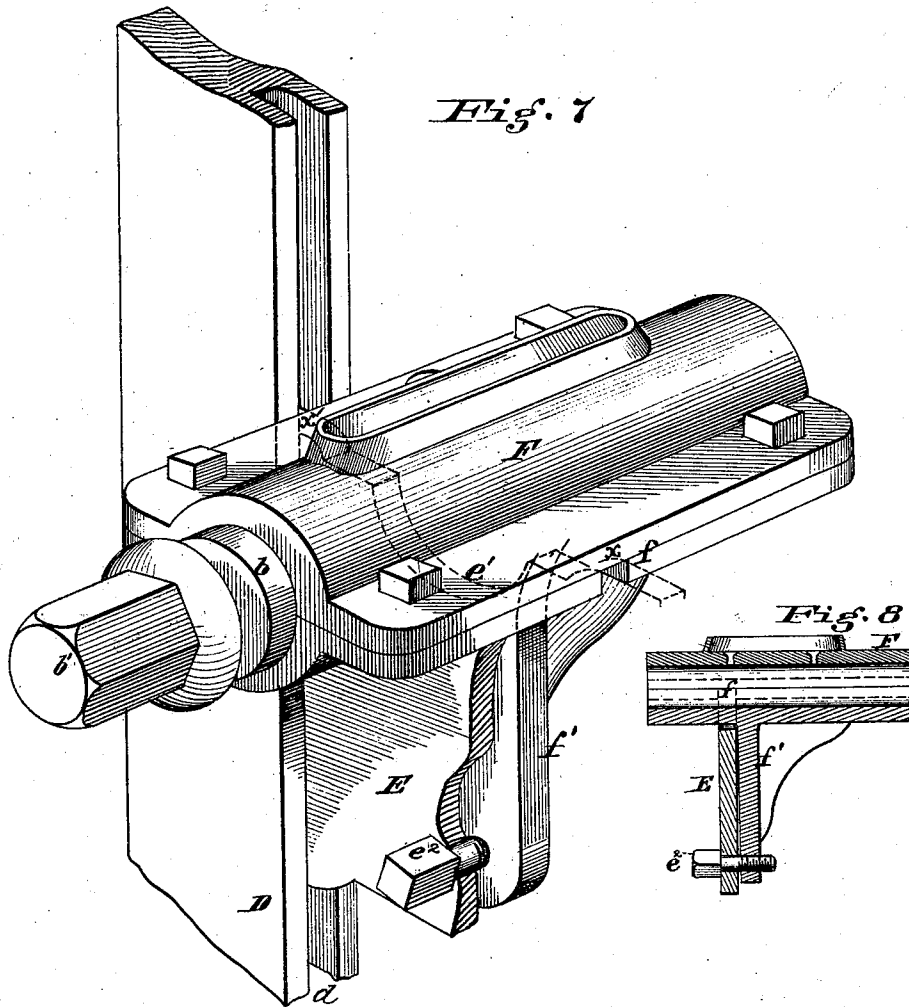
Inventor

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Inventor
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UNITED STATES PATENT OFFICE.

HENRY J. CORDESMAN, JR., OF CINCINNATI, OHIO, ASSIGNOR TO CORDESMAN, EGAN & CO., OF SAME PLACE.

IMPROVEMENT IN BAND SAWING-MACHINES.

Specification forming part of Letters Patent No. 177,622, dated May 23, 1876; application filed February 19, 1876.

To all whom it may concern:

Be it known that I, HENRY J. CORDESMAN, Jr., of Cincinnati, Hamilton county, and State of Ohio, have invented an Improvement in Band Sawing-Machines, of which the following is a specification:

My invention consists, in the first part, in a new and peculiar device for balancing the weight of the guide-slide of the machine; secondly, in an improved manner of securing the table to the frame, so as to provide in a simpler way than heretofore for adjustment of the table to different angles, means being provided for steadying the table at the point of adjustment; third, in an improved device for securing and adjusting the guides of the saw-blade; fourth, in a peculiar manner of connecting the journal-bearing for the upper band-wheel to the sliding frame of the same, by which a simple means of adjusting or leveling the upper shaft is provided.

Figure 1 is a perspective view of a band sawing-machine embodying my improvements. Fig. 2 is a perspective view of the device for securing the table to the frame of the machine. Fig. 3 is a section, showing the device for balancing the saw-guides. Fig. 4 is a plan of the device shown in Fig. 3. Fig. 5 is a perspective view of the guides for the saw-blade. Fig. 6 is a section of Fig. 5. Fig. 7 is a perspective view of the device for securing and adjusting the shaft of the upper band-wheel. Fig. 8 is a section of Fig. 7.

A is the frame of a band sawing-machine, having customary upper and lower band-wheels B B' for carrying the saw C. The lower shaft and band-pulley receive and apply the power, and the upper pulley merely carries the saw. D is a box forming part of the frame, and it is fitted with slideways *d*, in which is secured a sliding plate, E, adjustable by reason of the screw *e*, which has a bearing in the bottom of the box, and a screw-connection, with a lug, on the plate E. F is the journal-box for the upper band-wheel, and *b* the mandrel, which revolves in the box and carries the wheel, which is secured to it by nut *b'*. The box F rests over a depression, *e'*, of the plate E, (shown in the completed view of plate E by dotted lines, Fig. 6,) and is supported upon

the plate E on both sides at the points X X', and is prevented from accidental removal or displacement by means of notches *f* in the lower half of the box embracing the edge of the plate E at the points X X'. A screw, *e'*, turns in plate E, and is tapped into the arm *f'*, depending from the lower half of box F. As the strain of the saw upon wheel B will have a tendency to draw the arm *f'* from plate E, it is evident that the horizontal position of the bearing F may be varied or adjusted by operating screw *e'*, the bearing resting so as to rock upon the edge of plate E in the notches *f*. The top extension of frame A has two small arms, G G', to which are secured, as shown in Fig. 4, sockets *g g'*, by means of bolts. These sockets, by means of suitably-applied collars *h*, uphold the tubular slideway H of the adjustable guide-post I, which secures the stem I' of the upper saw-guide. In one of the sockets is secured a set-screw, *i*, which secures the post I in position, when desired. By reason of these detachable sockets *g g'* the saw can be put in more convenient form for shipment. As seen in Fig. 3, I form the post I hollow, and secure at its base a split socket, *i'*, in which the guide-stem I' is secured, while the upper end is left open. Inside the slideway H, at its top, I introduce a button, K, and inside the post I, at its base and upon the socket *i'*, I form another button, K'. L is a section of rubber tubing, secured between and to these buttons K K', and, necessarily, passing down post I, in such a manner that when the guide-supporting post I is at its greatest elevation the tubing will be strained enough to counteract the weight of the post and guide, and prevent them from dropping upon the table below when the set-screw *i* is loosened. It is not, however, necessary that the rubber tubing L should be in the form of a tube, as a band-like piece would perform all the functions of the tube. Secured to sockets *g g'* are the two supporting-arms of the guard M, which protect the saw above the table and partly around the upper wheel. The lower portion of frame A has a small neck, N, shown in Fig. 2, with concave bearing-surface *n*, extending upward and outward to a position under the upper saw-guide, and supports

a semi-cylindrical bearing-arm, O, having retaining-collars o o' , and an enlarged bearing-plate, o^2 , to which latter part the table P is secured. The bearing-arm O rests in the concave bearing n , and can be revolved within certain limits to alter the position of table P to or from a horizontal position, accordingly as it is desired to make a straight or bevel saw-cut. The collars or flanges o and o' will not only retain the table in position, but the neck N, being fitted snugly between them, will also give steadiness to the table. In the collar o' is formed a concentric slot, 1, through which a set-screw engages with the neck N, whereby the table can be held in any desired position, and also held firmly to its bearing. J is the guide-plate, having a stem, I', to enter the split retaining-socket i' of post I. Secured to the face of the plate J is a back-plate, Q, against which, when in operation, the back of the saw runs. R R' are the adjustable side guides, and are secured against the back-plate Q by means of set-screws S passing through the plate Q and into the plate J. The position of plate Q, with relation to the bracket J, may be varied or changed by means of set-screws T¹ T² T³ T⁴, acting in connection with screws S, the object being to adjust the guide perfectly to the back of the saw, so that a bearing, the whole depth of the

plate Q, may be secured, although the stem I' may not be at right angles to the saw.

I disclaim what is shown in United States Letters Patent Nos. 107,577 and 120,949.

I claim—

1. The combination of tube H, guide-post I, and rubber connection L, connecting and operating substantially as and for the purpose specified.

2. In combination with the neck N, having concave bed n , the semi-cylindrical bearing-arm O, having flanges o o' o^2 and slot 1 for fastening-screw, substantially as and for the purpose specified.

3. The combination of guide-plate J, adjustable back-plate Q, adjustable side guides R R', adjusting-screws T¹ T² T³ T⁴, and fastening-screws S, connected and operating substantially as and for the purpose specified.

4. The sliding plate E, having adjusting-screw e^2 , in combination with the adjustable notched bearing F f f' , substantially as and for the purpose specified.

In testimony of which invention I hereunto set my hand.

HENRY J. CORDESMAN, JR.

Witnesses:

EDGAR J. GROSS,
JOHN E. JONES.