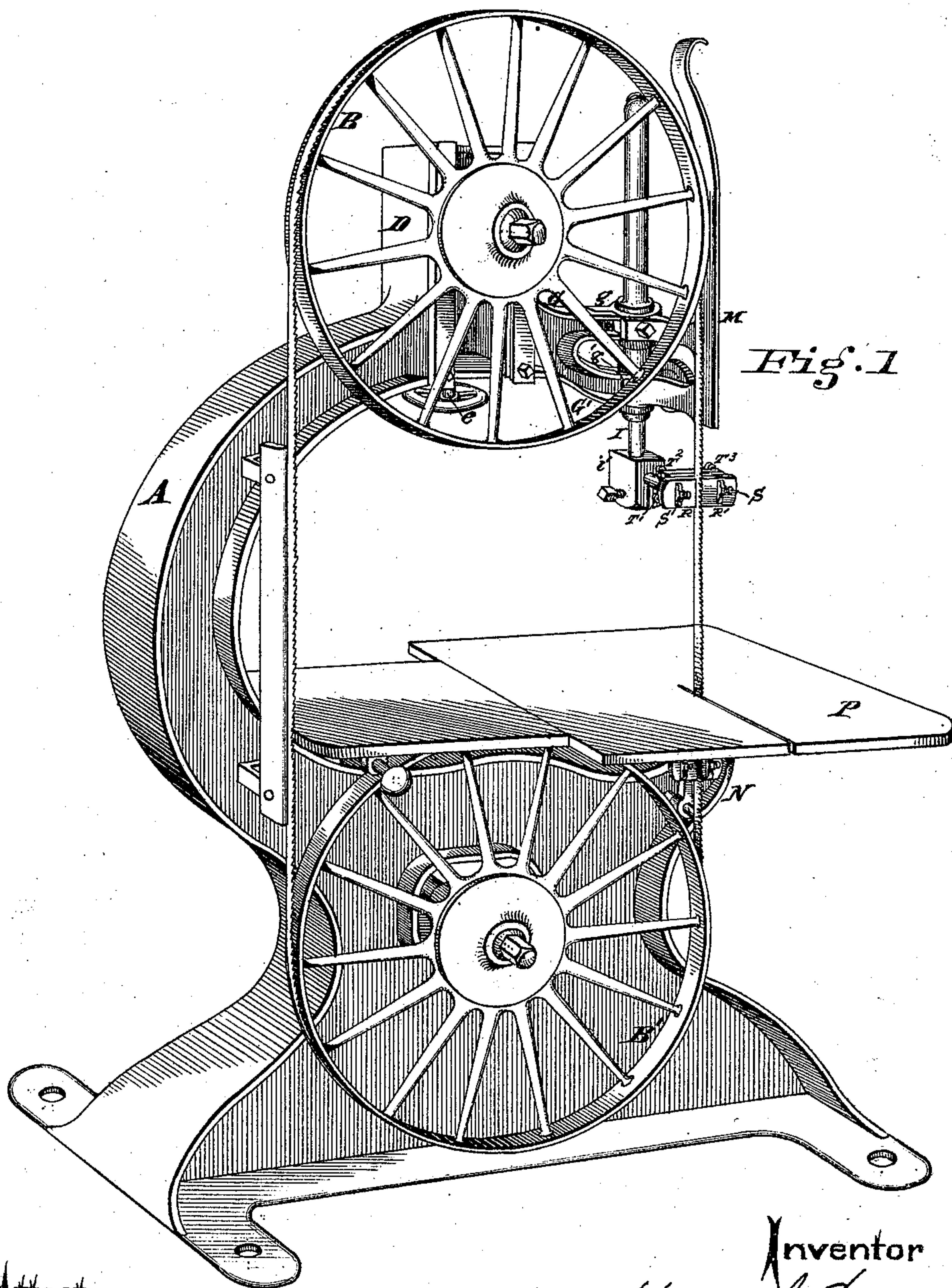


3 Sheets—Sheet 1.

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

No. 177,622.

Patented May 23, 1876.



Attest

John D. Jones
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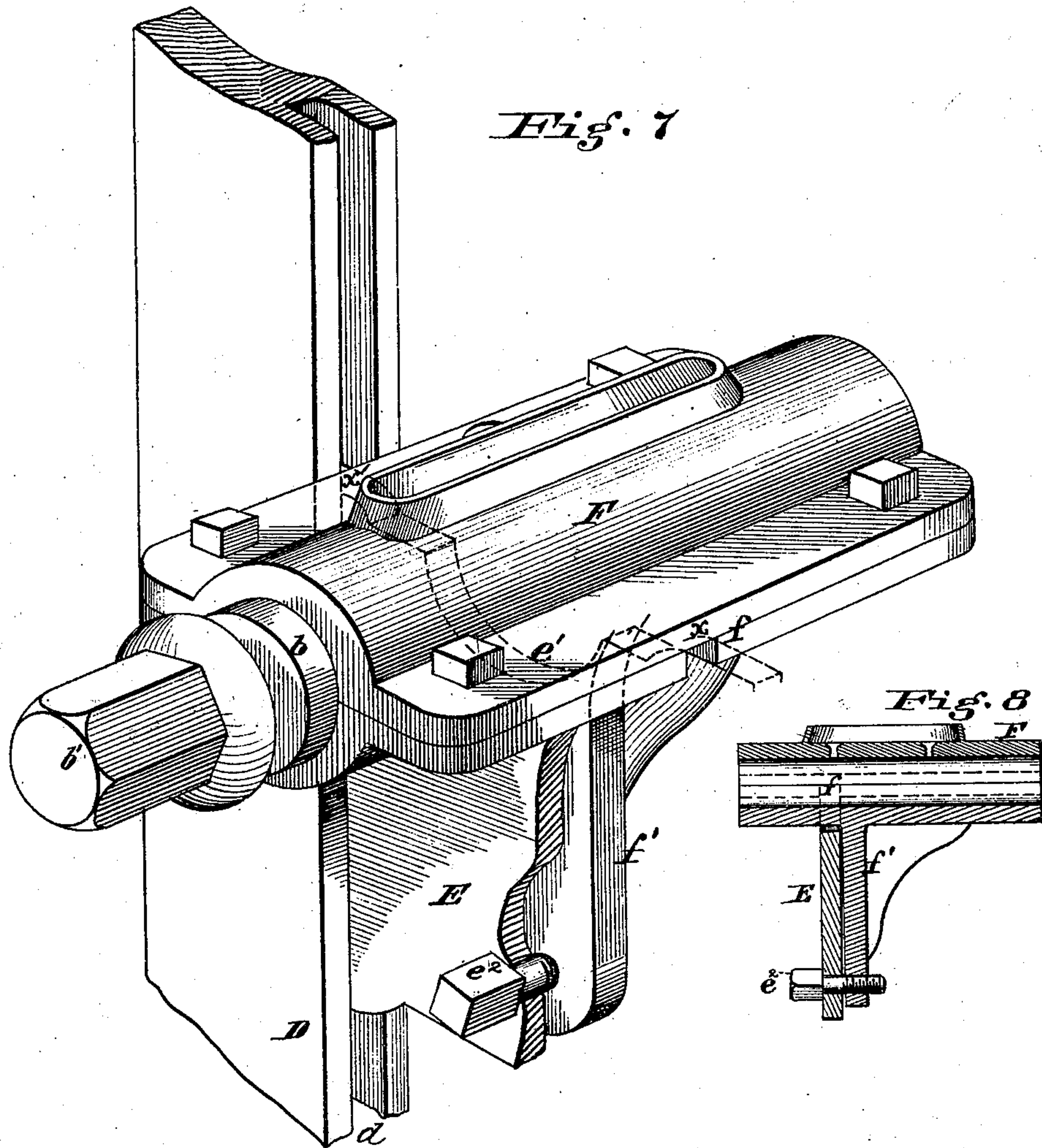
Inventor

Henry J. Cordesman Jr.
By T. Millward
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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^1 , 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^1 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^1 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^1 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.