

J. BENNETT.
Device for Adjusting Saw-Tables.

No. 225,323.

Patented Mar. 9, 1880.

Fig. 1.

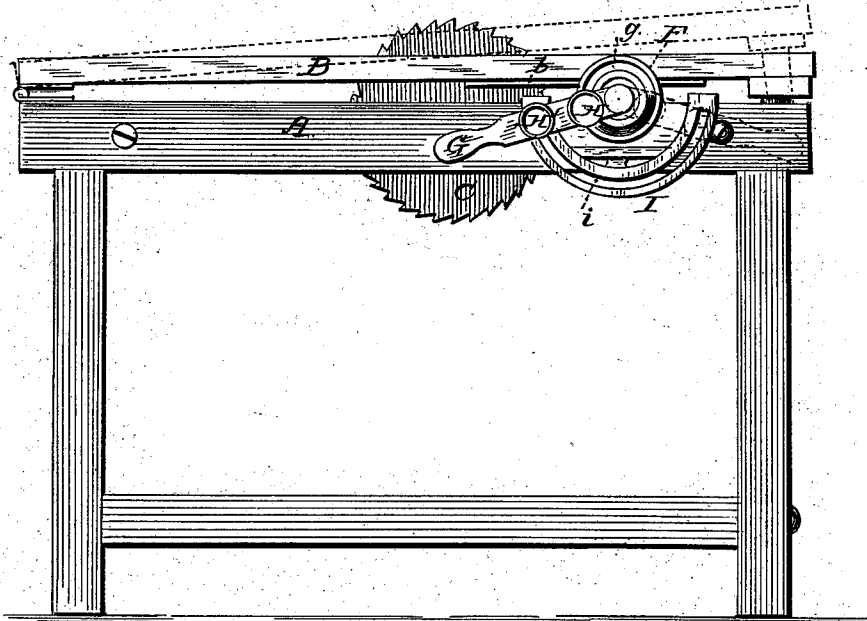
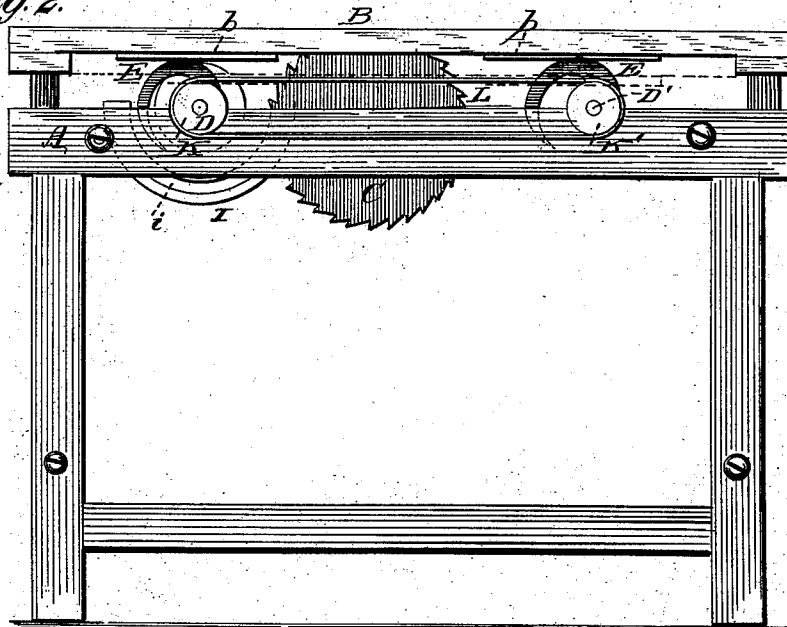


Fig. 2.



Witnesses
Edw. G. Dutcher
Jos. F. Power

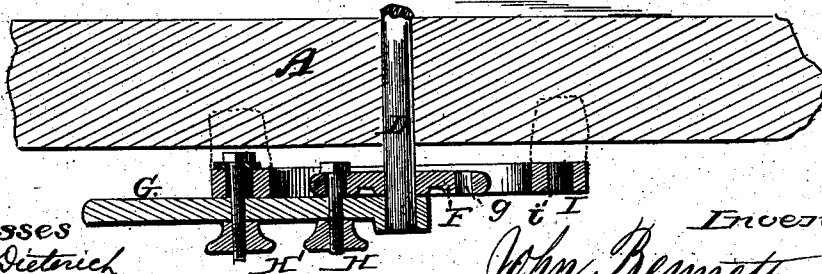
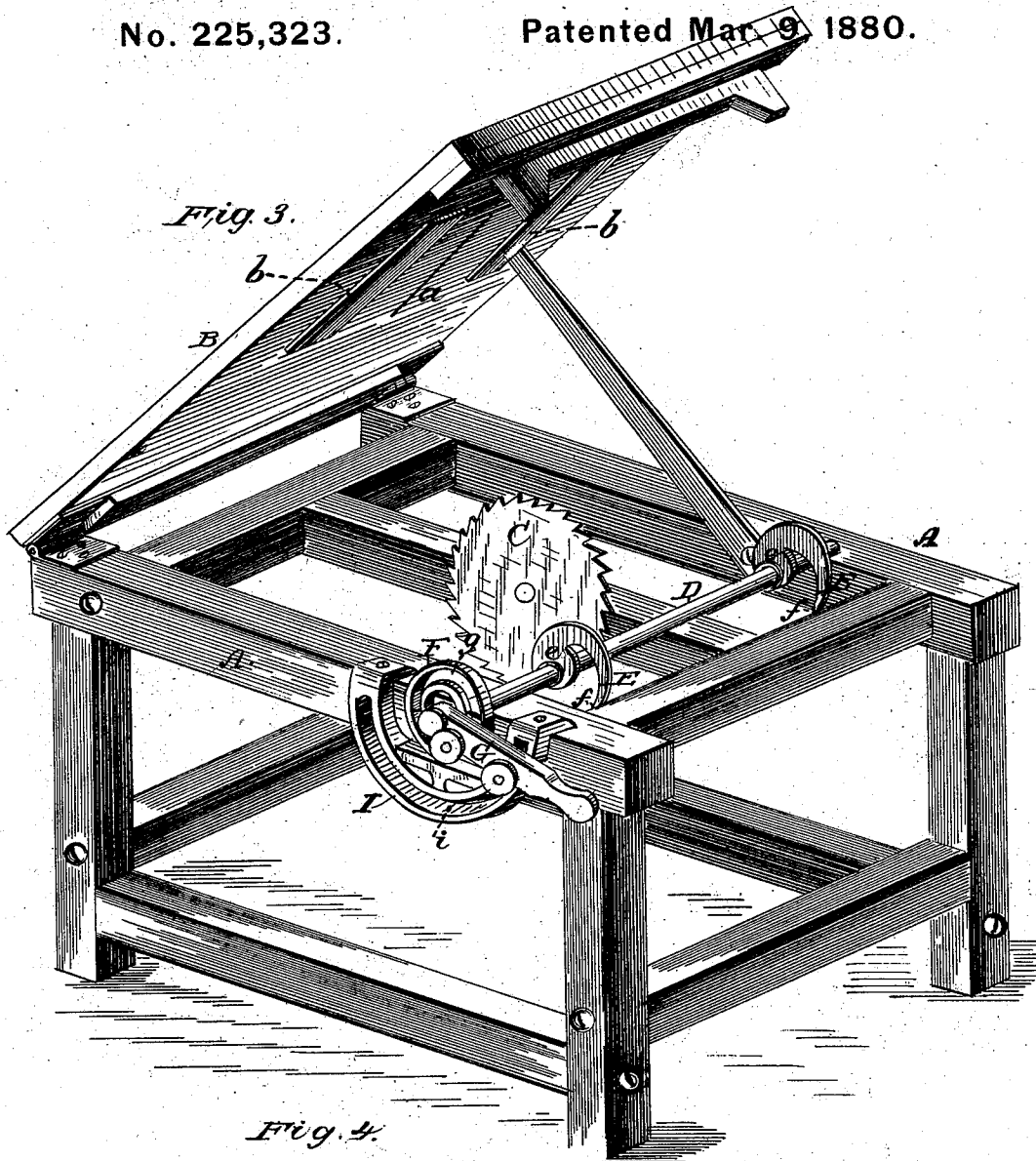
Inventor
John Bennett
by *A. Peterson*
Attorney

J. BENNETT.

Device for Adjusting Saw-Tables.

No. 225,323.

Patented Mar. 9 1880.



Witnesses
Fred. G. Dietrich

John F. Powers

Inventor

John Bennett
by A. Peterson & Co.
Attorneys

UNITED STATES PATENT OFFICE.

JOHN BENNETT, OF LUCKNOW, ONTARIO, CANADA, ASSIGNOR OF ONE-HALF OF HIS RIGHT TO WILLIAM H. MILLER, OF SAME PLACE.

DEVICE FOR ADJUSTING SAW-TABLES.

SPECIFICATION forming part of Letters Patent No. 225,323, dated March 9, 1880.

Application filed November 17, 1879.

To all whom it may concern :

Be it known that I, JOHN BENNETT, of Lucknow, in the Province of Ontario and Dominion of Canada, have invented certain new and useful Improvements in Devices for Adjusting Saw-Tables; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a side elevation of a circular-saw table embodying my improvement. Fig. 2 is a similar view of the opposite side, illustrating a modification in the construction of my device. Fig. 3 is a perspective view with the hinged table-leaf thrown back to show the cam-shaft with its cams; and Fig. 4 is a longitudinal section of the cam-shaft lever with its set-screws, slotted segment, and slotted disk.

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

This invention has relation to devices for the vertical adjustment of circular-saw and other machine tables for the purpose of regulating the depth of cut of the saw, or for similar purposes; and it consists in the combination, with the vertically-adjustable leaf or platform of the table, of a cam-shaft and a lever for operating said shaft, which acts in conjunction with devices for adjusting the cam-shaft in its relation to the lever, substantially as and for the purpose hereinafter more fully described.

In Fig. 1 of the annexed two sheets of drawings I have shown my improvement as applied to a circular-saw table having a hinged platform, and in Fig. 2 as applied to a table the platform of which is adjusted parallel to the bed or frame of the table.

Referring to Figs. 1, 3, and 4, A denotes the table-frame, to one end of which is hinged the leaf or platform B, which is provided upon its under side with two parallel shoes or bearing-plates, *b b*, and a narrow slot, *a*, through which the circular saw C works, said saw being operated by suitably constructed and arranged mechanism. (Not shown in the drawings.)

D is a shaft journaled in the side pieces of

frame A, and provided with two or more cams, E E, of the configuration shown in Fig. 3—that is, an Archimedean spiral form, with a gradually-increasing radius from the center *e*, where the cam is secured upon the shaft, to its point *f*. Upon one end of the shaft D is keyed a disk, F, the periphery of which has a semicircular slot, *g*, and upon the projecting end of the shaft is pivoted a lever, G, provided with two set-screws, H H', the upper one of which, H, works in the slot *g* of the circular disk F, while the lower set-screw, H', is inserted through a slotted semicircular segment, I, which is bolted upon one of the side pieces of frame A.

This arrangement and combination of the cam-shaft D, lever G, slotted disk F, and slotted segment I admits of the hinged platform B being adjusted with great nicety and in a very brief space of time. When the table-platform lies flat upon its bed or frame A disk F and lever G will be in the position shown in full line in Fig. 1—that is, the slotted half of the disk will be uppermost, with lever G set to the left side of the disk and the slotted segment I, it being secured in the disk by tightening the upper set-screw, H. By loosening the lower set-screw, H', and turning the lever from left to right the cams E E are rotated and brought to bear against the shoes *b b* on the under side of the platform B, the cams making one half-turn, so as to raise the platform to a corresponding height. To raise it still higher the upper set-screw, H, is loosened and the lever is turned back from right to left, the set-screws H H' slipping through their respective slots *g i*, while the operator holds disk F in position with his left hand, moving the lever with his right until it reaches the end of slot *i*, when it is again secured in the disk by tightening the set-screw H. By now turning the lever once more from left to right, the disk F, shaft D, and cams E E will make another half-revolution, which raises platform B to its full extent, after which the set-screws H H' are both tightened to retain the lever and cams in their respective positions. In other words, the disk, cam-shaft, and cams make one complete revolution with two half-revolutions of the operating-lever forward and one backward.

In the modification of this machine represented in Fig. 2 of the drawings the same principle prevails, only in this case two parallel cam-shafts, D D', are used, both of which extend on the outside of frame A, on the side opposite to that on which the segment I is secured.

K K' are two chain or spur wheels keyed upon the ends of shafts D D', respectively, and L is an endless chain, which passes around the said wheels. It follows that by operating the cam-shaft D in the manner described shaft D' will be operated in unison therewith, so as to elevate the platform B vertically parallel to its bed A.

To prevent lateral motion of the platform, suitably-arranged vertical guides may be arranged at the sides or ends thereof.

The advantages of this device are, among others, that it is not liable to become clogged and choked up with sawdust and oil; nor can it shift or become detached of itself by the operation and jarring of the machine. Again, the table-platform can be raised or lowered to its utmost limit, or to any intermediate height, very easily and rapidly, and the mechanism by which this is effected may readily be applied to any saw or other machine table of this class at a small expense, and requires no oil and very little care to keep it in working order.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. The combination, with the cam-shaft D, provided with the cams E E, and pivoted lever G, having set-screw H, of the slotted disk F, for adjusting said lever in its relation to the shaft, substantially as and for the purpose herein shown and specified.

2. The combination of the cam-shaft D, provided with the cams E E, and pivoted lever G, having set-screw H', with the slotted segment I, for adjusting said lever in its relation to shaft D and its slotted disk F, substantially as and for the purpose herein shown and specified.

3. The combination of the shaft D, having cams E E, and provided with the slotted disk F, pivoted lever G, having set-screws H H', and slotted segment I, substantially as and for the purpose herein shown and set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

JOHN BENNETT.

Witnesses:

JAMES SOMERVILLE,
ROBT. SOMERVILLE.