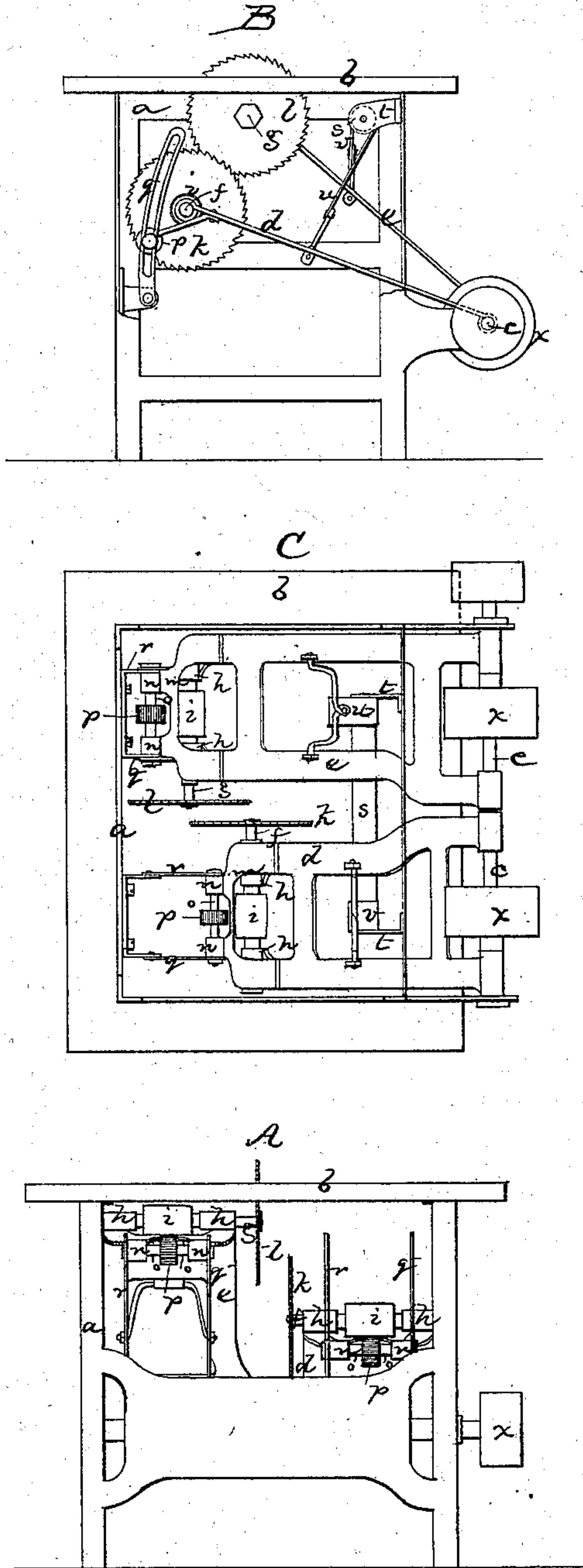


B. F. DUNKLEE.

Circular-Saw Benches.

No. 136,979.

Patented March 18, 1873.



Witnesses.  
J. B. Kidder.  
L. H. Oatman.

Inventor.  
B. F. Dunklee  
by his atty.  
Crossley & Gould

# UNITED STATES PATENT OFFICE.

BENJAMIN F. DUNKLEE, OF CONCORD, NEW HAMPSHIRE.

## IMPROVEMENT IN CIRCULAR-SAW BENCHES.

Specification forming part of Letters Patent No. 136,979, dated March 18, 1873.

*To all whom it may concern:*

Be it known that I, BENJAMIN F. DUNKLEE, of Concord, in the county of Merrimac and State of New Hampshire, have invented an Improvement in Circular-Saw Benches; and I do hereby declare that the following, taken in connection with the drawing which accompanies and forms part of this specification, is a description of my invention sufficient to enable those skilled in the art to practice it.

The invention relates to the combination, with a balanced saw frame or frames, of mechanism for adjusting and fastening the frames in position, and in such an arrangement of the two counterbalancing frames as will permit either to be raised without movement of the other frame.

The drawing represents a machine or saw-bench embodying the invention.

A shows the machine in front elevation. B is an end view of it. C is a reversed plan.

*a* denotes the bench-frame; *b*, the table; *c*, the driving-shaft, carrying pulleys *x x*. Upon this shaft are pivoted two vertically-swinging saw-frames, *d e*, which extend under the table, as seen at B, each having at its front end a saw-arbor, *f* or *g*, turning in suitable bearings *h*, and carrying a pulley, *i*. At the inner end of each arbor is the circular saw *k* or *l*, and by swinging either frame up its saw is brought up into operative position, as seen at *l*, while by swinging the frame down the saw is carried out of position, as seen at *k*. From each frame *d e* extends an arm, *m*, carrying two boxes, *n*, in which is mounted a screw-bolt, *o*, carrying between the boxes a hand-wheel or handle, *p*. The opposite ends of the bolt pass through slots in two curved bars, *q r*, extending up from a cross-beam of the frame *a*, the head of the bolt bearing against one bar, and a nut on the opposite screw-threaded end of the bolt against the other bar, so that, by turning the hand-wheel in one direction, the nut is loosened and the frame can be readily swung up or down, while by turning the wheel in the opposite direction the nut is tightened, and the frame is thereby locked in position. Under the rear side of the table is a shaft, *s*, journaled in stationary

bearings *t*, and to the opposite ends of this shaft the two pivoted frames *d e* are suspended—one by a strap, *u*, connected to the shaft and winding upon it in one direction, and the other by a similar strap, *v*, connected to the shaft and winding upon it in the other direction, so that by turning the shaft in one direction one strap is wound, and its frame thereby raised, and the other strap is unwound, and its frame thereby lowered, the two frames and their appurtenances being of equal weight, so that by slight downward pressure upon either, sufficient to overcome the friction, the other frame is raised, the lowering of one frame to carry its saw out of operative position raising the saw of the other frame into operative position. When either frame is thus brought into operative position it may be fastened there by turning its shaft *o* to tighten its nut.

With the machine made with two frames, one counterbalanced by the other, one frame may be used independently of the other by clamping the one not to be used below the table by means of its bolt and nut, the other being then raised by lifting, and being fastened by its bolt and nut.

The belt for driving each saw passes around the pulley *i* of its arbor *f* or *g* and the pulley *x* of its frame, and as each frame turns on the shaft upon which the driving-pulley *x* is fixed the belt is not affected by raising or lowering the frame.

This construction not only dispenses with the use of considerable mechanism, but affords a very simple and effective provision for adjusting the frames.

I claim—

The combination, with two saw-frames arranged to counterbalance each other so that both saws may be raised and operated together when desired, of devices for fastening in position, substantially as shown and described.

BEN. F. DUNKLEE.

Witnesses:

DANIEL C. ALLEN,  
FRANK W. DUNKLEE.