

(No Model.)

D. J. MURRAY.

SWINGING BRIDGE FOR SAW ARBORS.

No. 288,589.

Patented Nov. 13, 1883.

Fig. 1.

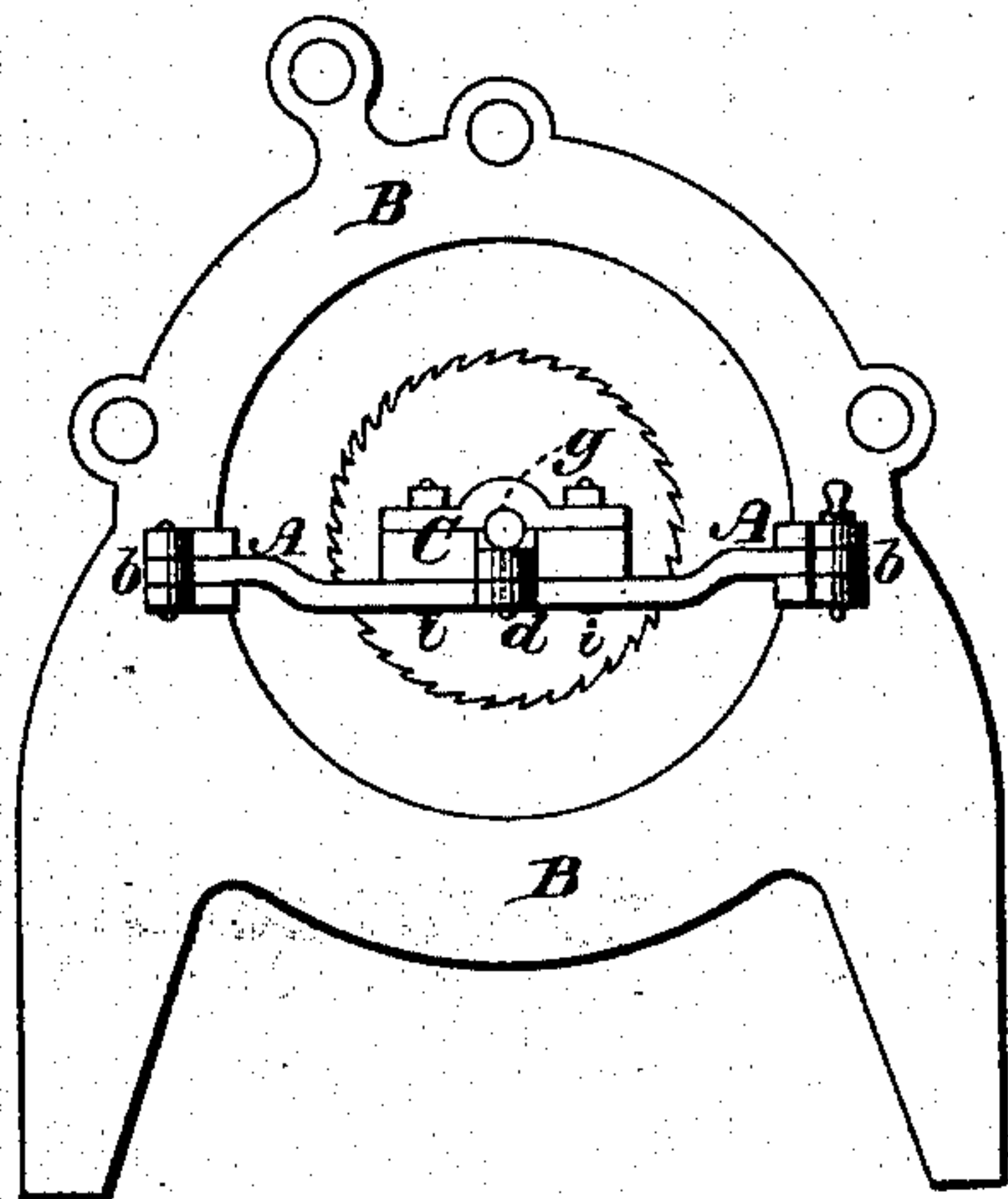


Fig. 2.

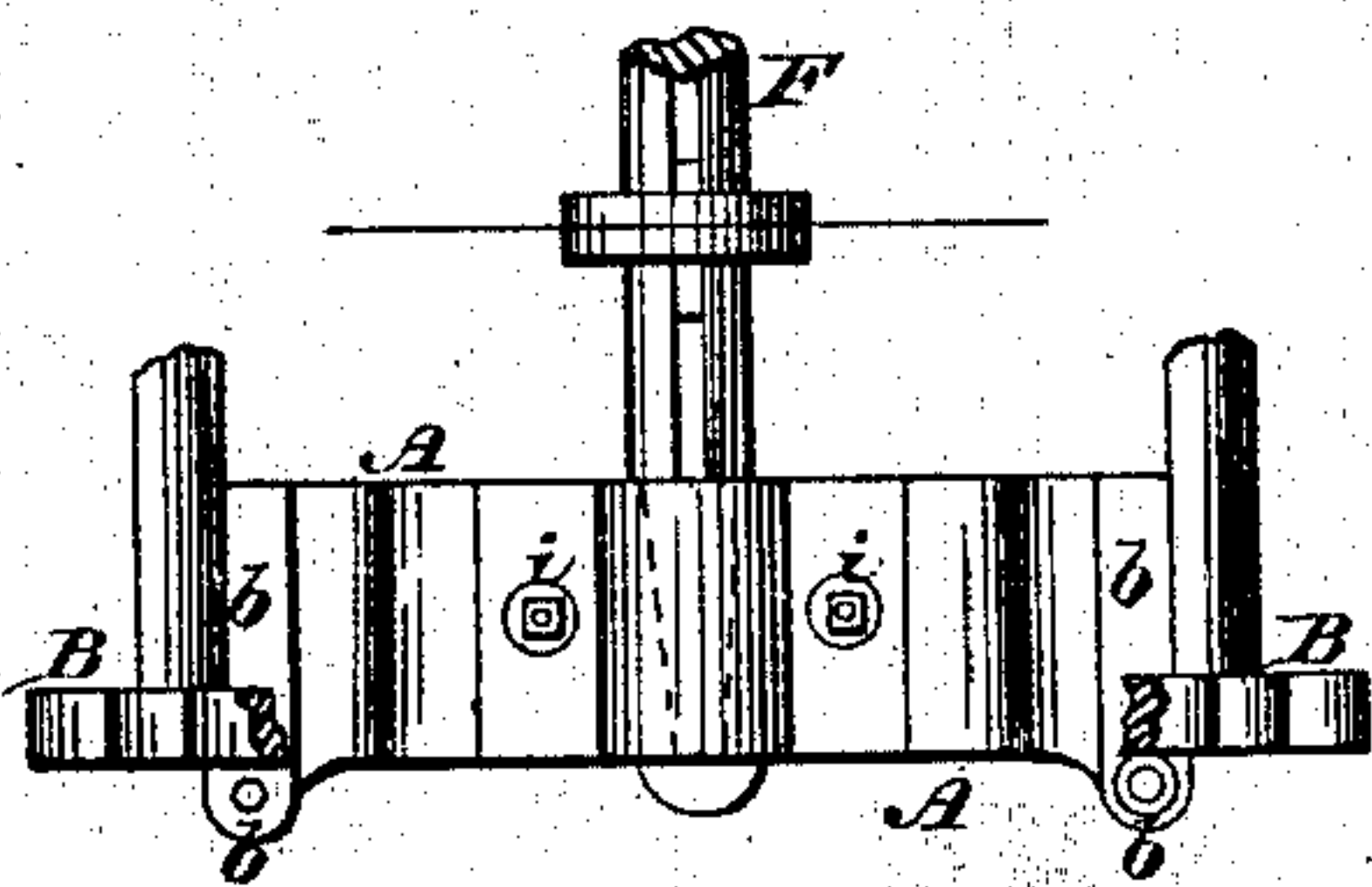


Fig. 3.

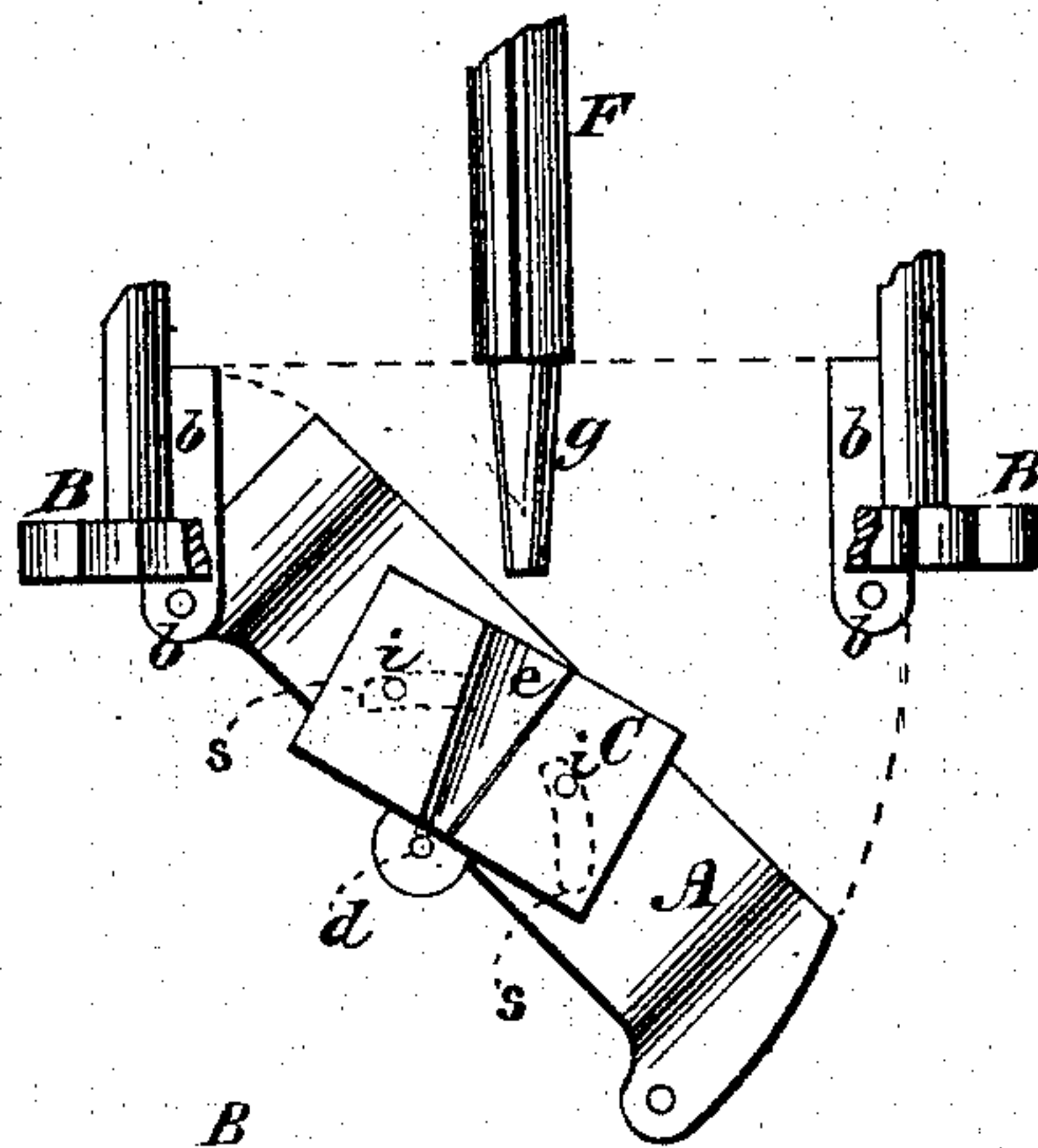
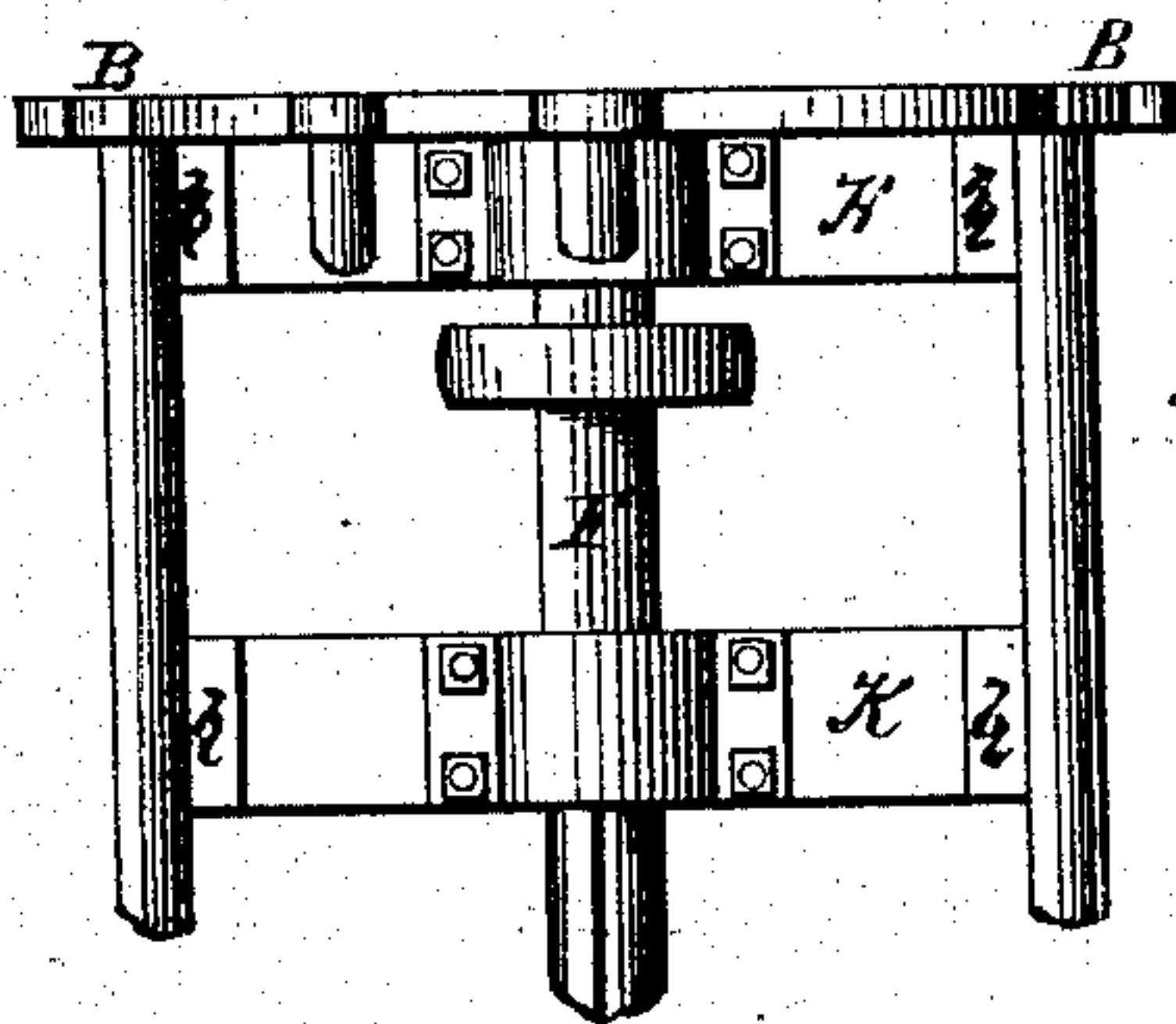


Fig. 4.



Witnesses.
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DONALD J. MURRAY, OF WAUSAU, WISCONSIN.

SWINGING BRIDGE FOR SAW-ARBORS.

SPECIFICATION forming part of Letters Patent No. 288,589, dated November 13, 1883.

Application filed July 7, 1883. (No model.)

To all whom it may concern:

Be it known that I, DONALD J. MURRAY, a citizen of the United States, residing at Wausau, in the county of Marathon and State of Wisconsin, have invented certain new and useful Improvements in Swinging Bridge-Trees; 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 letters or figures of reference marked thereon, which form a part of this specification.

My invention is a swinging bridge-tree for saw-arbors, and embraces the following peculiar features: a bridge-tree hinged at one end and swinging out of the grooved and supporting cleats of the end of the saw-frame which is opposite to that which supports the pulley end of the saw-arbor; also, an arbor-box pivoted upon said bridge-tree, and provided with a tapered bearing conforming to the journal of the arbor, and with two nut-bolts which secure and limit the turn of said box upon the bridge-tree; and, lastly, two curving slots cut through the bridge-tree in conformity with the slide of the heads of said nut-bolts in turning said arbor-box, all of which and their purposes are hereinafter more fully described, and illustrated by the accompanying drawings, in which the same letters designate identical parts of my device in the different figures, respectively.

Figure 1 illustrates an end view of a saw-frame, showing my device secured in place. Fig. 2 illustrates a top view of the same. Fig. 3 illustrates the same top view, but showing my device swung out from its supporting-cleats, with the arbor-box turned, in withdrawing the said bearing from the tapered arbor-journal, and in dotted lines the curved slots cut through the bridge-tree. Fig. 4 illustrates a top view of the end of the frame supporting the pulley end of the arbor, showing the two sliding bridges on each side of the pulley.

The letter A represents the said bridge-tree, which is made of suitable metal and dimensions, and substantially in the form shown in the drawings. Its ends are firmly supported in the grooves of the cleats *b*, which either form a portion of the end of the saw-frame B or are firmly and fittingly bolted to the same, and

which have also projecting and rounded outer ends, as shown. These outer ends, together with the outer corners of the bridge, are vertically pierced with suitable holes, to hold either a pintle or a pin, the one by which to pivot the said swinging bridge and the other to secure it in place. Suitably placed upon said bridge-tree is the said arbor-box C, which is provided with the pivot *d*, placed as shown, upon which said arbor-box automatically turns whenever the said bridge is swung outward, to free the end of the arbor, to slip off or on the saws. The said conformable taper of the arbor-box bearing *e*, as shown, together with said pivotal motion of the box, greatly facilitates the ease and safety with which the whole device is slid off and upon the arbor F, the journal *g* of which also tapers toward its outer end, to assist the same result. In order to obviate the necessity or trouble of withdrawing the nut-bolts *i*, and prevent the liability of displacing the cap of the arbor-box C, and yet allow said box to freely and automatically turn upon its pivot while being withdrawn from the arbor by the said swing of the bridge, two counter-curved slots, *s*, are cut through said bridge, as shown, in which said bolts shall conformably slide with the said pivotal motion of the arbor-box. The said bridge-tree is also suitably curved at the swinging end, so that it may be easily slipped out and into its grooved cleat.

The pulley end of the arbor F is provided with two counter-supporting bridge-trees, H and K, which are slipped into and supported by their respective grooved cleats *m* and *n*, as shown, where they are secured by bolts or screws. These latter bridge-trees serve to support and, with the pulley, suitably balance the arbor while the swinging bridge-tree A, with its arbor-box, is withdrawn, and the saws are being removed for filing or other purpose, thereby saving the considerable time hitherto lost and the necessitous trouble in removing the arbor altogether from the frame before the saws could be removed.

By means of my invention, constructed, fitted, and adjusted as hereinbefore described, the whole operation—namely, of slightly loosening the nut-bolts *i*, of swinging open the bridge-tree A, and thus withdrawing the automatically-turning arbor-box C, and entirely

freeing the journal end *g* of the arbor F, and of removing the saws—is easily accomplished in a few minutes—an operation which by the modes hitherto generally in use would have
5 taken at least an hour. Therefore

What I claim as new, and desire to secure by Letters Patent, is—

1. In the saw-frame B, the hinging and swinging bridge A, provided with the conformably-
10 curving slots *s*, and carrying the automatically-turning arbor-box C, provided with the adjustable pivot *d*, the tapered bearing *e*, and the adjustably-sliding bolts *i*, substantially as
and for the purposes herein specified.

15 2. The hinging and swinging bridge-tree A,

having the automatically and adjustably moving arbor-box C, in combination with the tapered journal *g* of the arbor F, and the sliding bridge-trees H and K, adjusted and secured in the grooved cleats *m* and *n*, respectively, of the frame B, and also supporting and balancing the pulley end of the arbor, substantially as and for the purposes herein specified. 20

In testimony whereof I affix my signature in
presence of two witnesses. 25

DONALD J. MURRAY.

Witnesses:

GEO. W. THAYER,

V. A. ALDERSON.