

(No Model.)

G. LUPPERT.
SWING CUT-OFF SAW.

No. 469,156.

Patented Feb. 16, 1892.

Fig. 1.

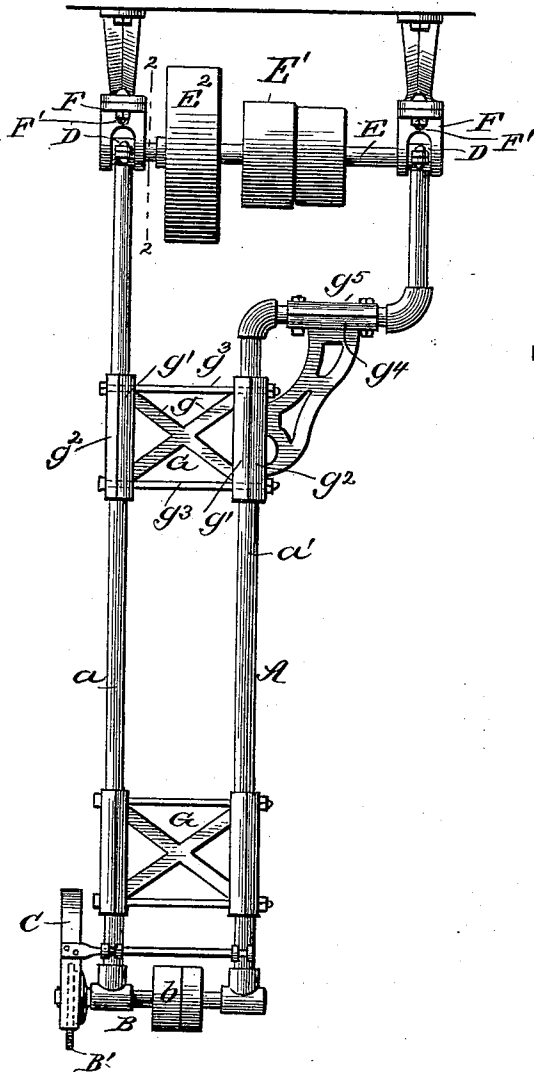


Fig. 2.

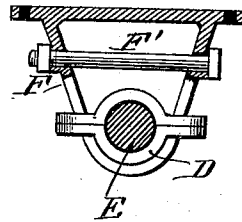
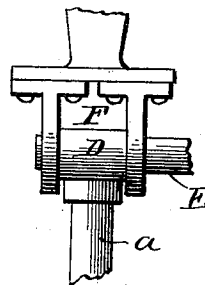


Fig. 3.



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SWING CUT-OFF SAW.

SPECIFICATION forming part of Letters Patent No. 469,156, dated February 16, 1892.

Application filed April 6, 1891. Serial No. 387,895. (No model.)

To all whom it may concern:

Be it known that I, GEORGE LUPPERT, of Williamsport, in the county of Lycoming and State of Pennsylvania, have invented a new and useful Improvement in Swing Cut-Offs for Saws, of which the following is a specification.

This invention relates, generally, to swing cut-offs for saws, and more particularly to the improved hanger-bearings and the bracing of the frame, the object of my invention being to simplify said bearings and hangers, dispensing with several of the parts, and producing a device that is cheap, simple, durable, and efficient for the intended purposes.

With these objects in view my invention consists in the details of construction of the several parts and their novel combination or arrangement, all of which will be fully explained hereinafter, and pointed out in the claims.

In the drawings forming a part of this specification, Figure 1 is a front elevation. Fig. 2 is a section on line 2 2, Fig. 1. Fig. 3 is a detail view of a somewhat different construction.

In carrying out my invention I employ the usual pendent swinging frame A, having the saw-arbor B journaled in the lower end of the same, said arbor having a pulley *b* mounted thereon intermediate its ends, the saw B' being mounted upon the end of the arbor. A guard C is suitably connected to the end of the pendent frame.

In constructing the frame I prefer to employ one straight rod or beam *a* and the angular rod or beam *a'* to allow for the drive-pulley and fly-wheel, the said rods or beams being braced, as hereinafter explained. The upper ends of the rods or beams *a* and *a'* are rigidly connected with the boxes D D, in which is journaled the revoluble shaft E, upon which the drive-pulley E' and balanced fly-wheel E² are mounted. The boxes D D are supported in the hangers F F, secured to the joists or other suitable supports.

The hanger F may consist of a single bowed strap slotted longitudinally at its bowed portion to permit the play of the rod or beam, the box D resting and rocking in the bowed portion and extending transversely across the

longitudinal slot in the same, as shown most clearly in Fig. 2, or the hanger F may be composed of two bowed straps, the ends of the box resting and rocking in the bow of said straps and the rod working between the same, as most clearly shown in Fig. 3. A tie or brace rod F' is employed to connect the members of the bowed strap when a single slotted strap is employed.

The rods or beams *a* and *a'* are braced adjacent to the angular portion by means of the double diagonal brace G, said brace consisting of two crossed bars *g*, having the semicircular plates *g'* rigidly attached to the ends of the same, the said plates being adapted to rest against the inner faces of the rods or beams, and upon the outer faces of said rods or beams are arranged similar plates *g*², the said plates being arranged to mate with the plate *g'*, and are secured to the frame-rods by means of the bolts *g*³, which pass through both of the frame-rods, and all of the plates thus securely bracing the frame at that point. The angular portion is also braced by means of a web which is formed integral with one of curved plates *g*² and a plate *g*⁴, which is secured to the horizontal member of the angular portion, said plate *g*⁴ being secured by bolts to said horizontal member and a mating plate *g*⁵. The lower end of the frame is also braced by a double diagonal brace G, which is constructed and arranged similar to the upper brace, except that the bracing-web is not employed.

The operation of my improved device is of course clear to every one skilled in the art to which it pertains, and it will be seen that by the construction herein described only two journal-boxes are employed where four are usually needed, thereby saving considerable power in driving the revoluble shaft and also dispensing with the extra boxes.

It is preferred to cast or forge the hanger in one piece, as clearly shown in Fig. 2.

Having thus described my invention, what I claim as new is—

1. The combination, with the rods *a* and *a'*, of the double diagonal brace G, consisting of the cross-bars *g*, having the semicircular plates *g'* rigid with their ends, the plates *g*², adapted to mate with the plates *g'*, and the

bolts g^3 for securing the brace to the rods, substantially as shown and described.

2. The combination, with the rods a and a' , the rod a' having an angular portion, as described, of the double diagonal brace secured to the said rods below the angular portion, the plates g^4 and g^5 , secured to the rod a' above the brace, and the web integral with the plate g^4 and the adjacent plate g^5 of the said double diagonal brace, all arranged and adapted to operate substantially as shown and described.

3. The combination, with the hangers, of the drive-shaft, journal-boxes supported thereon and rocking therein, and the pendent frame rigidly connected with the journal-

boxes and working in the hangers, substantially as shown and described.

4. The combination, with the hangers consisting of a longitudinally-slotted bowed strap, of the drive-shaft, journal-boxes supported by the hangers and rocking upon the same, and the pendent frame rigidly secured to the boxes and working in the longitudinal slots in the hangers, substantially as shown and described.

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Witnesses:

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