

(No Model.)

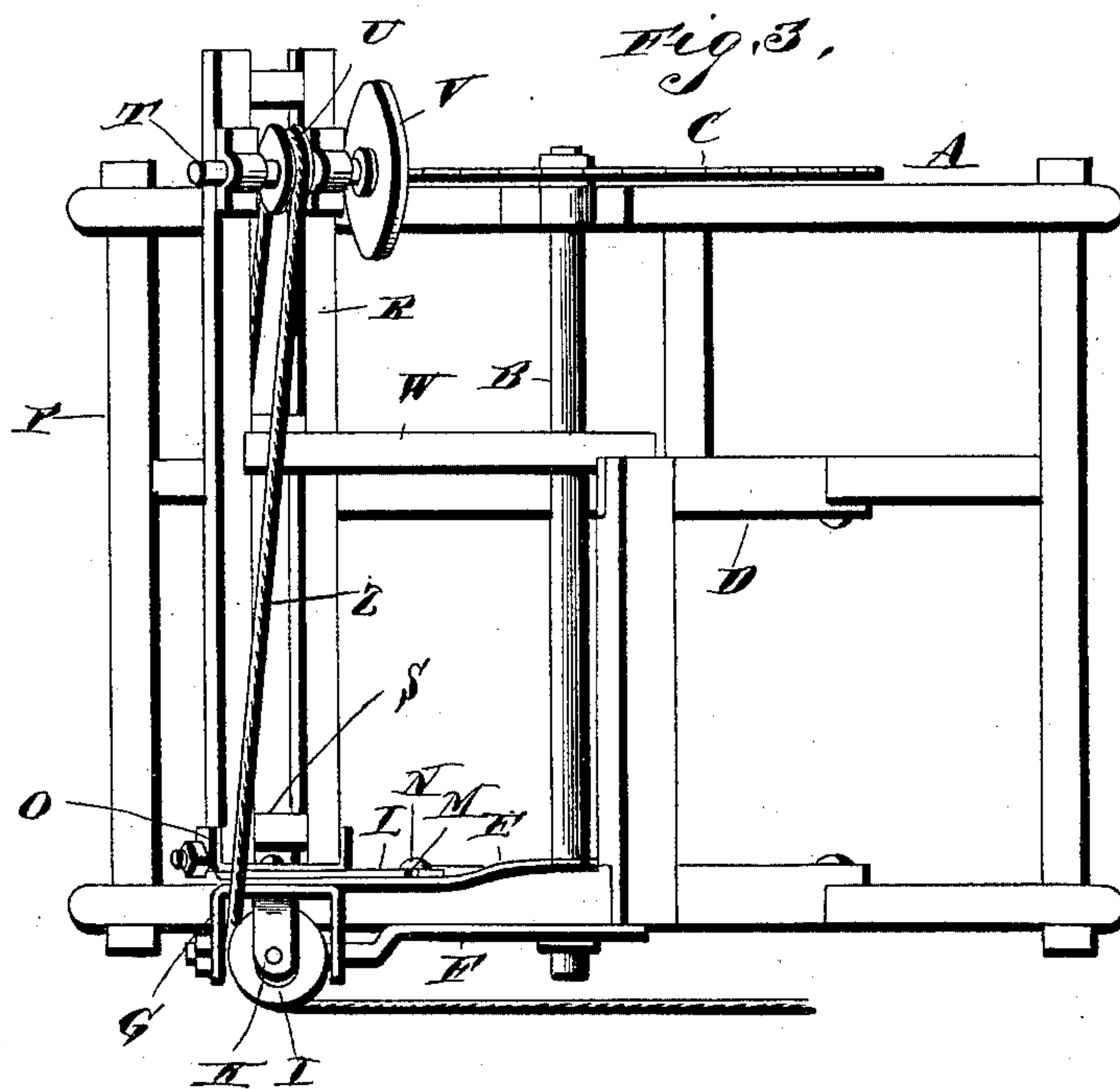
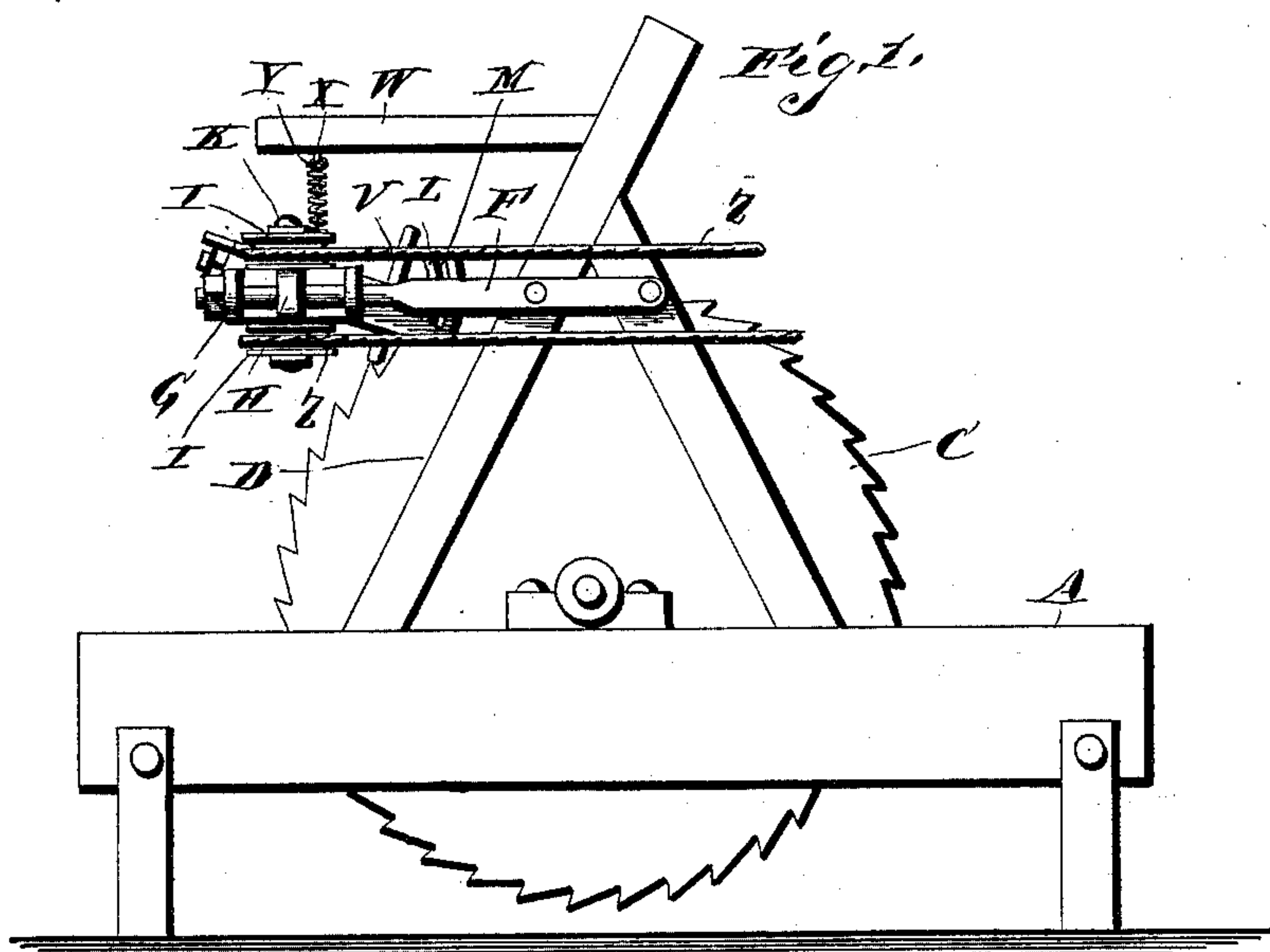
2 Sheets—Sheet 1.

O. H. BURDETT.

SAW GUMMER.

No. 390,563.

Patented Oct. 2, 1888.



Witnesses

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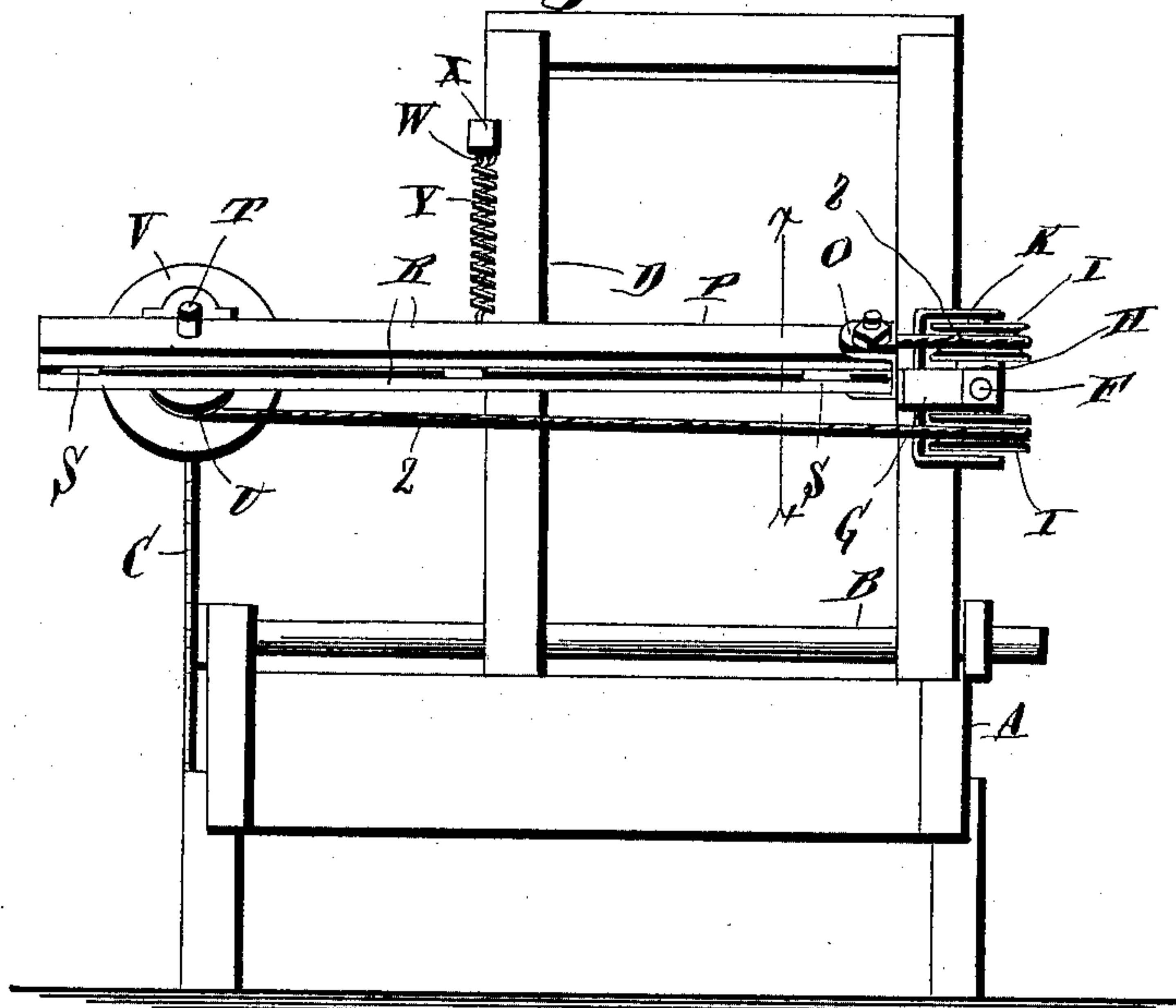
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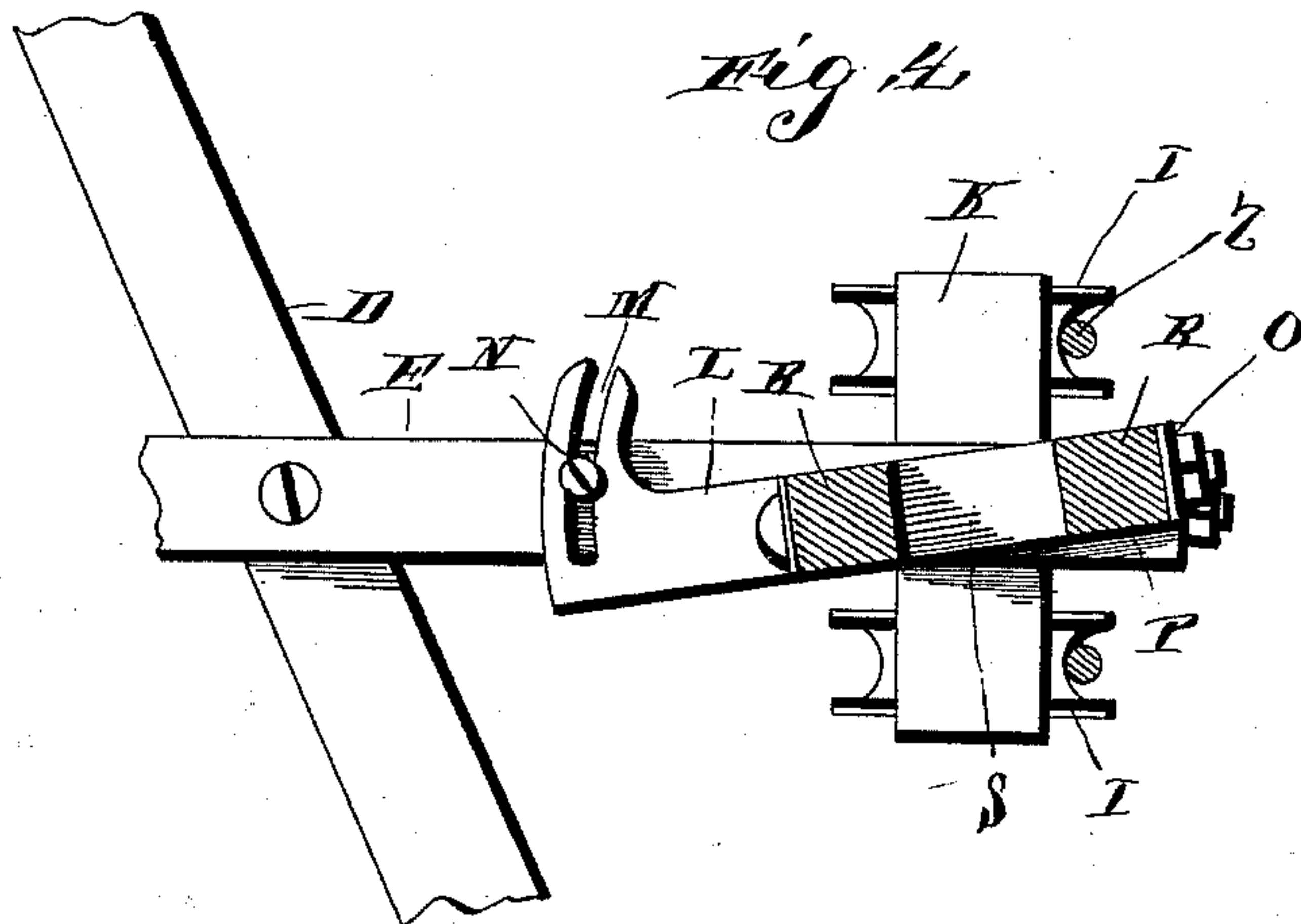
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*Fig. 2,*



*Fig. 1,*



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# UNITED STATES PATENT OFFICE.

OLIVER HENRY BURDETT, OF BEALLSVILLE, OHIO.

## SAW-GUMMER.

SPECIFICATION forming part of Letters Patent No. 390,563, dated October 2, 1888.

Application filed July 20, 1888. Serial No. 280,469. (No model.)

*To all whom it may concern:*

Be it known that I, OLIVER HENRY BURDETT, a citizen of the United States, residing at Beallsville, in the county of Monroe and State of Ohio, have invented a new and useful Improvement in Saw Gummers and Dressers, of which the following is a specification.

My invention relates to an improvement in saw gummers and dressers; and it consists in the peculiar construction and combination of devices, that will be more fully set forth hereinafter, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a side elevation of a circular saw and table provided with a gummer and dresser embodying my improvements. Fig. 2 is a front elevation of the same. Fig. 3 is a top plan view of the same. Fig. 4 is a vertical longitudinal sectional view taken on the line  $x x$  of Fig. 2.

A represents a saw frame or table of the usual construction, on which is journaled the arbor B, having the circular saw C.

D represents an inclined frame, which is supported on the saw table or frame and rises therefrom at a point above the saw-arbor. To one side of the said frame D is secured a pair of parallel forwardly-extending arms, E F, which are arranged in a horizontal plane. The outer end of the arm E has a yoke, G, the arms of which extend at right angles from the arm E and have openings through which the outer end of the arm F extends. On the said projecting end of the arm F is secured a block, H, which is adapted to turn slightly thereon, and the said block has projecting spindles at its upper and lower ends, on which are journaled guiding sheaves or pulleys I, which are provided with annular peripheral grooves. A yoke or strap, K, has its ends secured to the ends of the spindles on which the guiding-sheaves are journaled.

L represents a vertical plate, which is pivoted on the inner side of the arm E near the outer end of said arm, and said plate is provided at one end with an open curved slot, M, which is concentric with the pivot of said plate. A stud, N, or set-screw projects from the inner side of the arm E and is adapted to enter the slot M, and may be turned so as to clamp the plate to the arm E at any desired angle. A

yoke, O, is secured to the upper portion of the plate on the inner side thereof, and to the said yoke is pivoted the inner end of a frame or arm, P, which comprises a pair of parallel bars, R, connected at their ends and at their centers by transverse beams or blocks S.

From the foregoing description it will be understood that the arm or frame P is connected loosely to the arm E, so that said arm P may be swung in either a horizontal or vertical direction, or at any desired angle.

In the outer end of the frame or arm P is journaled a shaft, T, which has a sheave or pulley, U, and is provided at one end with an emery or other suitable grinding-wheel, V.

W represents a horizontal arm, which projects from the inner side of the frame D and has a keeper or eye, Y, at its outer end.

Y represents a coiled spring, which is secured to an arm or frame, P, and has a hook at its upper end, which is adapted to engage the eye or keeper X, so as to support the frame or arm P in a horizontal position, with the emery or grinding wheel arranged at right angles to the circular saw and at a slight distance above the same. An endless belt, cord, or rope, Z, passes around the pulley U, is guided on the sheaves or pulleys I, and passes around a suitable pulley on a suitable counter-shaft, (not shown,) by means of which rotary motion may be imparted to the said grinding-wheel.

The operation of my invention is as follows: When the arm P is arranged in the position before described and the circular saw is at rest, and the emery or grinding wheel is revolving, the operator depresses the outer end of the arm or frame P against the tension of the spring Y, so as to cause the emery-wheel to be lowered in the notch between two of the saw-teeth and thereby dress and gum the same, as will be understood. Said arm or frame P is then raised as before by the spring Y, the saw is turned a distance corresponding to one tooth, and the arm or frame is again depressed, so as to cause the emery-wheel to again engage the saw, and so on, until every tooth of the saw has been gummed and dressed. The spring Y is then unhooked from the arm W, the set-screw M is then released from the plate L, the latter is swung on its pivot so as to arrange



the shaft of the emery-wheel in a vertical position, the arm or plate P is then turned on a pivotal bolt to a position parallel with the arm E, and is then raised and turned backward and caused to rest in an inclined position against the upper side of the frame E, as illustrated in dotted lines in Fig. 1.

Having thus described my invention, I claim—

1. The combination of the supporting-frame, the arm or frame P, flexibly connected thereto and adapted to be turned to any desired position, the shaft journaled at the outer end of the said arm or frame, the shaft having the grinding-head and the pulley U, the guiding sheaves or pulleys supported at the inner end of the arm or frame, and the endless cord or belt adapted to connect the pulley U to a pulley on a suitable counter-shaft and engaging the guiding-sheaves, substantially as described.

2. The combination of the frame D, supported on the saw-frame and having the arm E, the plate L, arranged in a vertical position and pivoted to the said arm, means, substantially as set forth, to secure said plate at any desired adjustment, the arm or frame having its inner end pivotally connected to the said plate, and the shaft at the outer end of said arm or frame, and having the grinding-wheel

and the pulley or sheave, substantially as described.

3. The combination of the pivoted arm or frame P, having the shaft at its outer end provided with the grinding-wheel and with the pulley U, and the spring connected to the said arm or frame and adapted to support the same normally in a horizontal position, substantially as described.

4. The combination of the saw frame or table, the inclined frame D thereon, having the arms E F at its outer side and the arm W at its inner side, the block journaled on the arm F, and having the guiding-sheaves I, the plate L, pivoted to the inner side of the arm E, and adapted to be secured at any desired angle, the arm or frame P, having its inner end pivoted to the said plate, the shaft journaled in the outer end of said arm or frame, and having the grinding-wheel and the pulley U, and the spring attached to the arm or frame and adapted to be connected to and disconnected from the arm W, substantially as described.

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

OLIVER HENRY BURDETT.

Witnesses:

A. H. SINCLAIR,  
W. P. KING.