

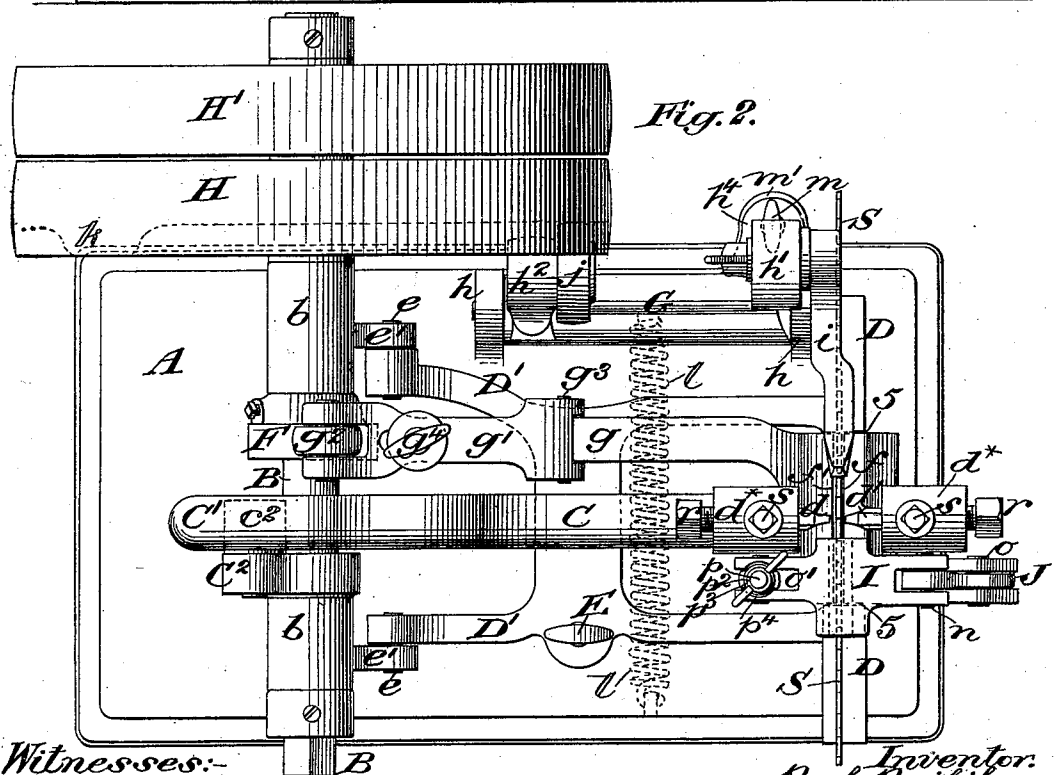
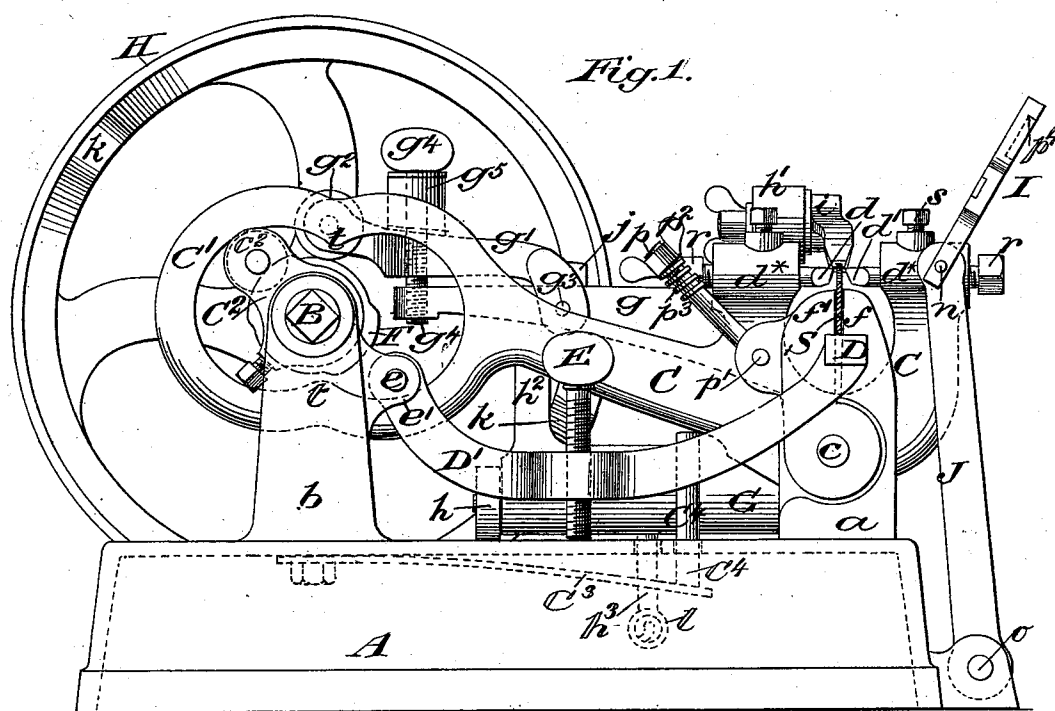
(No Model.)

2 Sheets—Sheet 1.

P. PRYIBIL.
SAW SETTING MACHINE.

No. 534,406.

Patented Feb. 19, 1895.



Witnesses:-
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C. Sundgren

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UNITED STATES PATENT OFFICE.

PAUL PRYIBIL, OF NEW YORK, N. Y.

SAW-SETTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 534,406, dated February 19, 1895.

Application filed October 22, 1894. Serial No. 526,583. (No model.)

To all whom it may concern:

Be it known that I, PAUL PRYIBIL, of the city and county of New York, in the State of New York, have invented a new and useful Improvement in Saw-Setting Machines, of which the following is a specification.

I will first describe my invention with reference to the accompanying drawings and afterward point out its novelty in the claims.

Figure 1 represents a side view of a machine embodying my invention; Fig. 2, a plan of the same, and Fig. 3 a front view of the same.

Similar letters and numerals of reference designate corresponding parts in all the figures.

A designates a bed plate on which are erected two standards *a* and two standards *b*, the said standards *a* supporting the pivot *c* which constitutes the fulcrum of the lever *C* which is bifurcated over said fulcrum as shown at *d** *d** in Figs. 1 and 2. The two opposite arms *d** *d** of the said lever formed by its bifurcation are constructed with sockets 25 which hold the setting dies *d* *d*'. The said standards *b* contain also the bearings for the rotary driving shaft B from which the said lever C and other parts of the machine derive their necessary movements.

D is a rest upon which the back of the saw blade to be set is supported between the setting dies *d* *d*'. This rest forms part of a frame D' which is pivoted at *e* in lug *e*' on the standards *b*. In order to provide for the adjustment of wider and narrower saws to the setting dies the said frame D' has screwed through it an adjusting screw E which rests upon the bed plate A. The standards *a* are prolonged upward above the pivot *c* and rest 30 D to form the stationary jaw *f* of a vise *f* *f*', the movable jaw *f*' of which is pivotally connected to the said standards. This connection is represented as made by the same pivot *c* which constitutes the fulcrum of the setting dies. The rest D is interrupted at 5, 5, to make room for the vise *f* *f*' and is prolonged in both directions beyond the vise for a sufficient length to give proper support to the saw.

The driving shaft B is arranged parallel with the rest D and with the direction in which the saw S is to run thereon. The said shaft

is furnished with a cam arm C², which carries an antifriction roller *c*² operating within a yoke C' on the lever C for actuating the setting dies. Under the said lever C there is attached to the under side of the bed plate A, a spring C³ for the purpose of bringing the lever C to a central position in which the two setting dies stand at some distance from the sides of a saw S in the vise *f* *f*' as shown in Fig. 1, the said spring acting through a rod C⁴ which passes through an opening in the bed-plate A. The said shaft B is also furnished with a cam F for operating on the movable jaw *f*' of the vise, the said movable jaw being furnished with an arm *g* *g*' which carries an antifriction roller *g*² bearing on the said cam. In order to provide for the adjustment of the opening movement of the vise jaw *f*' to a greater or less extent, the arm *g*' is made of two members pivoted together at *g*³ and adjustable one to the other by means of a screw *g*⁴. Between the arm *g*' and the head of the screw *g*⁴, is applied an elastic cushion or spring *g*⁵ for the purpose of enabling the vise to close with a yielding pressure.

G is a rock-shaft for feeding the saw. This rock-shaft is arranged at right angles to the driving shaft B in bearings *h* on the bed-plate and it is furnished with two arms *h*' *h*², the said arm *h*' carrying the pawl *i* which engages with the teeth of the saw for the purpose of feeding it to the said dies and the said arm *h*² being furnished with a roller *j* which is acted upon by two cams *k* for the purpose of producing the necessary oscillation of the shaft for the feeding movement. These cams *k* are represented as formed upon the driving pulley H of the shaft B. A third arm *h*³ of the said rock-shaft which projects through the bed-plate, has applied to it a spring *l* for drawing back the pawl *i*. The said rock-shaft is also furnished with a fourth arm *h*⁴ in which is an adjustable stop screw *m* which regulates the backward movement of the pawl and consequently the length of the feed of the saw by stopping against a lug *m*' provided on the side of the bed-plate.

I is a plate for holding down the saw on the rest D. This plate is arranged in front of the setting dies and over the vise, as shown in Fig. 2. The said plate is pivoted at *n* to the upper end of a swinging arm J which is pivoted

at its lower end at *o* to lugs on the bed-plate. The said plate has in it a slot *o'* to receive a screw *p* which is pivoted at *p'* to the movable jaw *f'* of the vise. This screw is fitted with
 5 a winged nut *p²* under which there is placed on the screw a coil spring *p³*. When the machine is in operation the plate *I* is brought
 10 over the saw and secured by having the screw *p* drawn into the slot *o'* and having the nut *p²* screwed down as shown in Fig. 2, but for the purpose of permitting the introduction of the saw into the machine and for getting access to the vise when necessary, the screw is drawn forward out of the slot *o'* and the plate
 15 *I* is raised and thrown back as shown in Fig. 1. The spring *p³* interposed between the nut *p²* and the plate *I*, produces a yielding pressure upon the plate which prevents it from injuring the teeth of the saw. The spring *p³*
 20 also serves another purpose, viz: that of locking the plate *I* in its operative position over the saw, the slotted portion of the plate having a countersink *p⁴* into which the said spring engages in such manner as to prevent the
 25 plate from being drawn back until the nut is sufficiently slackened to permit the spring to be raised out of the slot.

This machine may be either driven by hand or by power. For driving by power it is represented as furnished with fast and loose pulleys *H H'* on one end of the shaft, and for driving by hand the shaft is represented as squared at the other end for receiving a hand crank.

35 The setting dies which are exactly opposite each other are so fitted to their sockets in the opposite arms *d* d** of the lever *C* as to be adjustable by means of screws *r r* so that their points are at a proper distance apart, and the
 40 adjustment is secured by binding screws *s*.

The yoke *C'* is so constructed with internal projections *t t* at the top and bottom that the cam roller *C²* operating upon the said projections, produces the movements of lever and
 45 setting dies in opposite directions during the fractional portions of a revolution of the shaft *B*, leaving the lever at intervals between these movements free to remain in its central position in which it is at rest upon the spring *C³*

and pin *C⁴*. When the lever is thus at rest 50 by reason of the cam being inoperative upon it, the setting dies are both at a distance from the saw, and it is while the lever is in this central position that the vise opens and the feed pawl *i* operates. By the upward movement 55 of the lever the operation of the setting die *d* is produced and by the downward movement of the said yoke the operation of the setting die *d'* is produced. The return of the lever to the central position after the downward 60 movement of the yoke and the operation of the die *d'*, is produced by the spring *p³* and the return to the said position after the upward movement of the yoke is produced by the weight of the end of the lever itself. 65

It will be understood that as there are two feed cams *k* and the cam roller *c²* has a double action within the yoke *C'*, one tooth is set in one direction and the next tooth is set in the opposite direction during every revolution of 70 the shaft *B*.

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

1. The combination with a lever having a cam yoke and having two arms carrying respectively two setting dies, a rotary shaft furnished with a cam which is double-acting within said yoke, a device for feeding the saw, and a spring for supporting said lever and dies in a central position in which the said 80 cam is inoperative within the yoke during the feeding of the saw, substantially as herein set forth.

2. The combination with the saw rest and the vise, of the holding down plate *I*, the 85 swinging arm *J* to which said plate is pivoted, and the pivoted screw *p* with its nut *p²* and spring *p³*, the said plate *I* having a slot for the reception of the screw *p* and a countersink *p⁴* for the reception of said spring, all substantially as herein described. 90

In testimony whereof I have hereunto signed my name in the presence of two subscribing witnesses.

PAUL PRYIBIL.

Witnesses:

FREDK. HAYNES,
 L. M. EGBERT.