J. CONNOR.

SAW-GUMMER.

No. 172,392. Patented Jan. 18, 1876.

Fig. 1

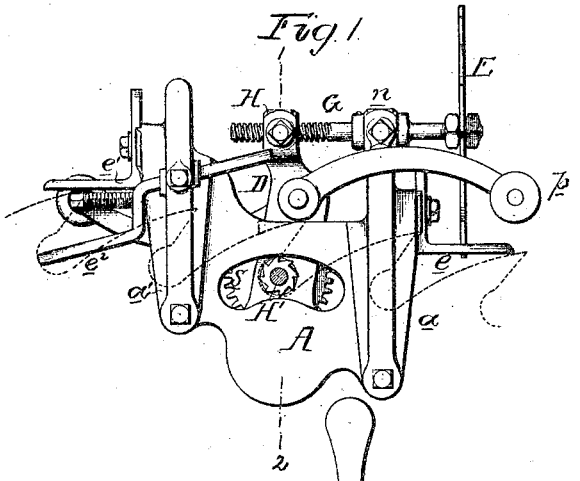


Fig. 2.

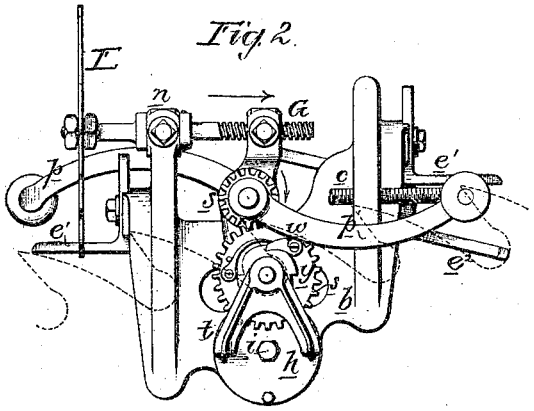


Fig. 3.

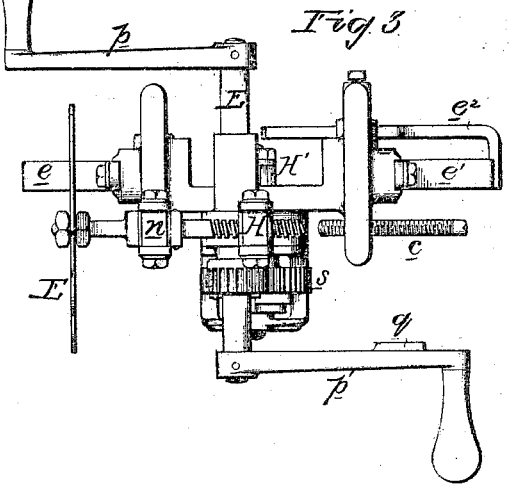


Fig 4

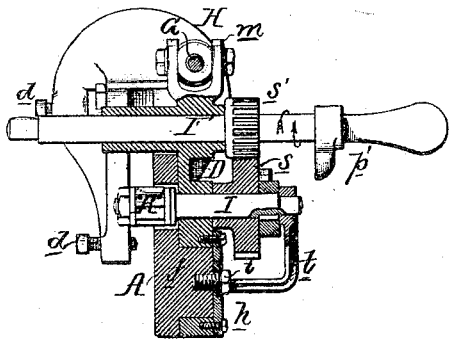
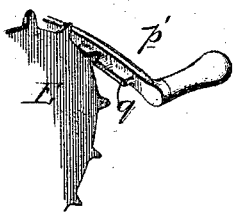


Fig. 5.



Witnesses
Harry Howson Jr
Harry Smith

John Connor
by his Attorneys
Howson and Son.

UNITED STATES PATENT OFFICE.

JOHN CONNOR, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF ONE-HALF HIS RIGHT TO HENRY DISSTON, HAMILTON DISSTON, AND ALBERT H. DISSTON, OF SAME PLACE.

IMPROVEMENT IN SAW-GUMMERS.

Specification forming part of Letters Patent No. **172,392**, dated January 18, 1876; application filed December 29, 1875.

To all whom it may concern:

Be it known that I, JOHN CONNOR, of Philadelphia, Pennsylvania, have invented an Improved Saw-Gummer, of which the following is a specification:

My invention relates to improvements, fully described hereafter, in that class of gummers which are used for deepening the throats of circular-saw teeth, my improvements being directed to the simplifying and increasing the efficiency of machines of this class.

Figure 1 is a side view of my improved saw-gummer; Fig. 2, a rear view; Fig. 3, a plan; Fig. 4, a transverse section on the line 1 2; and Fig. 5, a detached perspective view, illustrating a part of my invention.

The frame of the machine consists of a substantial cast-iron saddle, A, two legs, *a a'*, of which, Fig. 1, are on one side, and the plate *b*, Fig. 2, on the opposite side of the saw-blade, to which the said saddle is confined by set-screws *d*, Fig. 4. The position of the machine on the blade is determined by an adjustable stop, *e*, arranged at one end of the saddle, and bearing on one tooth of the saw-blade, and against another tooth by a like adjustable stop, e^1, arranged at the opposite end of the saddle, and also bearing on a tooth of the saw, and by an adjustable bar, e^2, which bears against the throat of one of the teeth. To a circular hub or projection, *f*, Fig. 4, on one side of the saddle, is hung a carrier, D, which is confined to its place by a plate, *h*, and set-screw *i*, the position of this carrier being under the control of a screw-shaft, G, adapted to a nut, H, which is arranged to swivel between jaws formed on the outer end of the carrier, the screw-shaft being adapted to a swivel-bearing, *n*, Fig. 3, on the saddle, and being furnished at its outer end with a star feed-wheel, E. A shaft, F, has its bearing in the carrier D, and this shaft is provided with two handles, *p* and *p'*, one at each end, and one of these handles has a projecting rib, *q*, which at every revolution of the shaft F strikes one of the teeth of the star-wheel, and thus turns the screw-shaft G. The cutter-spindle I has one of its bearings in the carrier D, and the other in a bracket, *t*, forming part of the plate *h*, which is secured to and turns with the carrier, the said shaft I carrying a cog-wheel, *s*, which gears into a pinion, *s'* on the shaft F. The wheel *s* is loose on its shaft, and carries a spring-pawl, *w*, adapted to a ratchet-wheel, *y*, secured to the spindle I, so that the rotation of the cutter-spindle can be in one direction only, thereby preventing that damaging of the cutter-teeth which frequently occurs when they are accidentally turned back.

The saddle having been properly adjusted, so that the cutter H', which is of the usual construction, shall be in the throat of one of the teeth of the saw-blade, the operator seizes the handles, one in each hand, and turns the shaft F in the direction of the arrow, Fig. 4; at the same time the screw G is intermittently rotated by one of the handles and the carrier D caused to turn on the hub *f* in the direction of the arrow, Fig. 2, and the cutter is consequently fed forward, so as to remove the metal from the throat of the tooth. This is continued until the carrier is arrested by the point of a set-screw, *c*, which has been previously adjusted, and which determines the depth of the cut. The carrier is now moved back by operating the screw-shaft G, the fastenings of the saddle then loosened, preparatory to attaching it to the blade in a proper position for the cutter to operate on the throat of another tooth, this position being determined by the above-mentioned stops.

I claim as my invention—

1. The combination, in a saw-gummer, of the carrier D, hung to the saddle, and carrying the cutter-shaft I and driving-shaft F, with the feed-screw G.

2. The combination of the carrier D, feed-screw G, and star-wheel E, arranged in respect to one of the handles as specified.

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

JOHN CONNOR.

Witnesses:

HARRY HOWSON, Jr.,

HARRY SMITH.