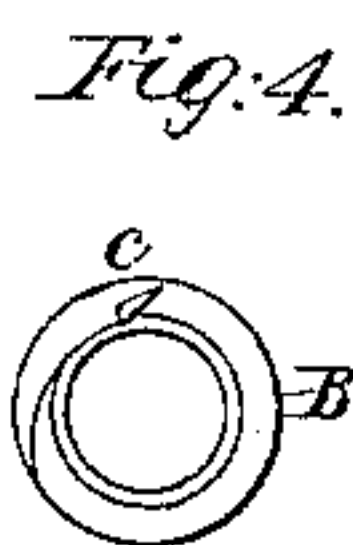
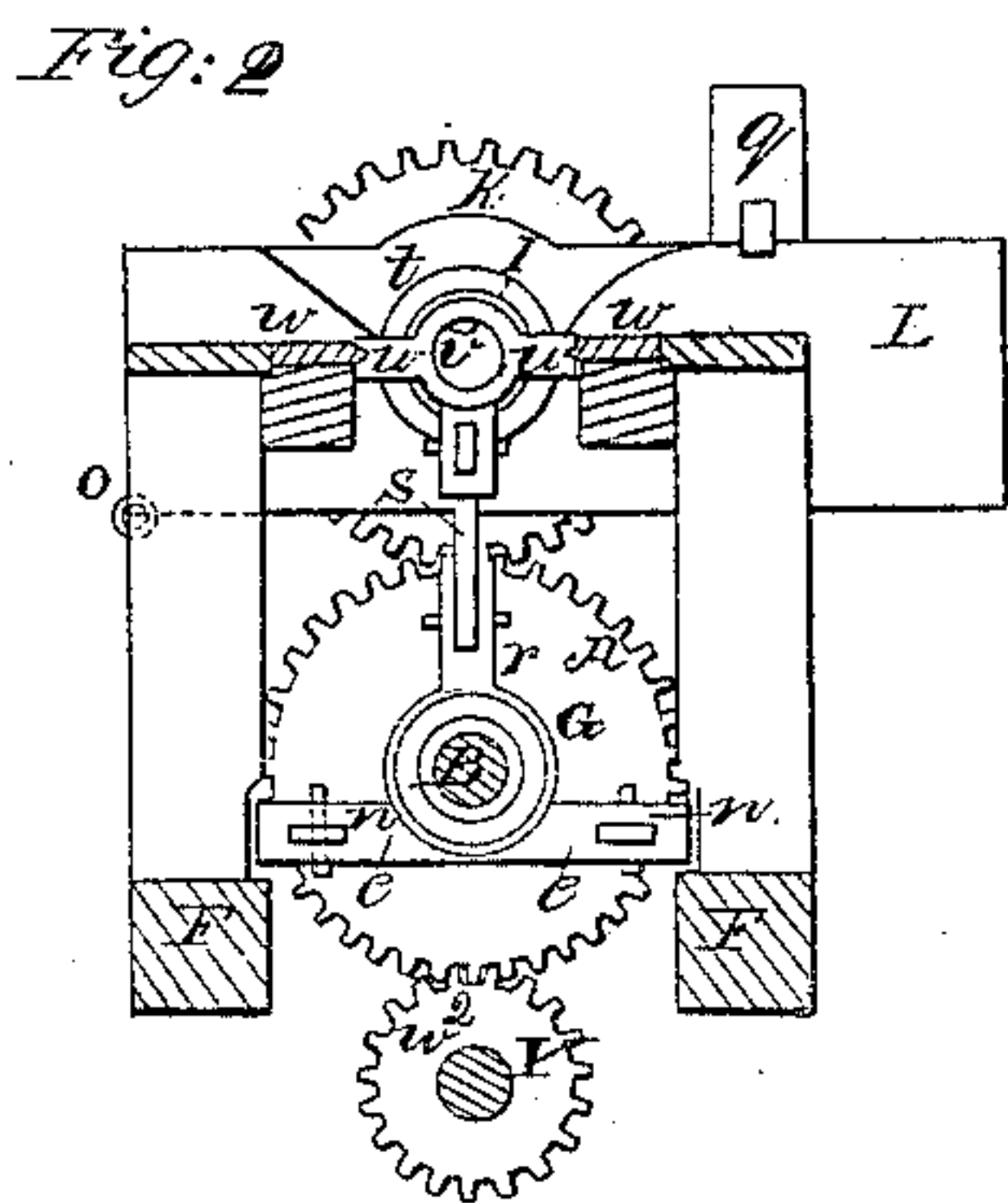
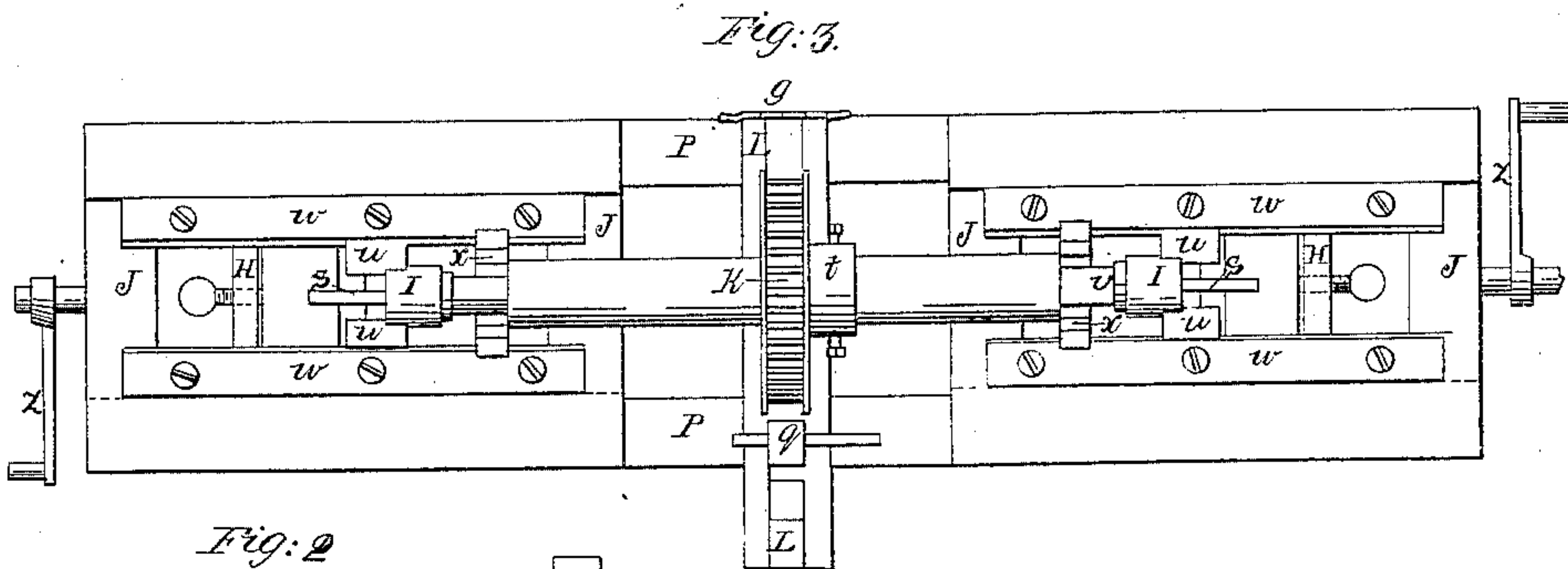
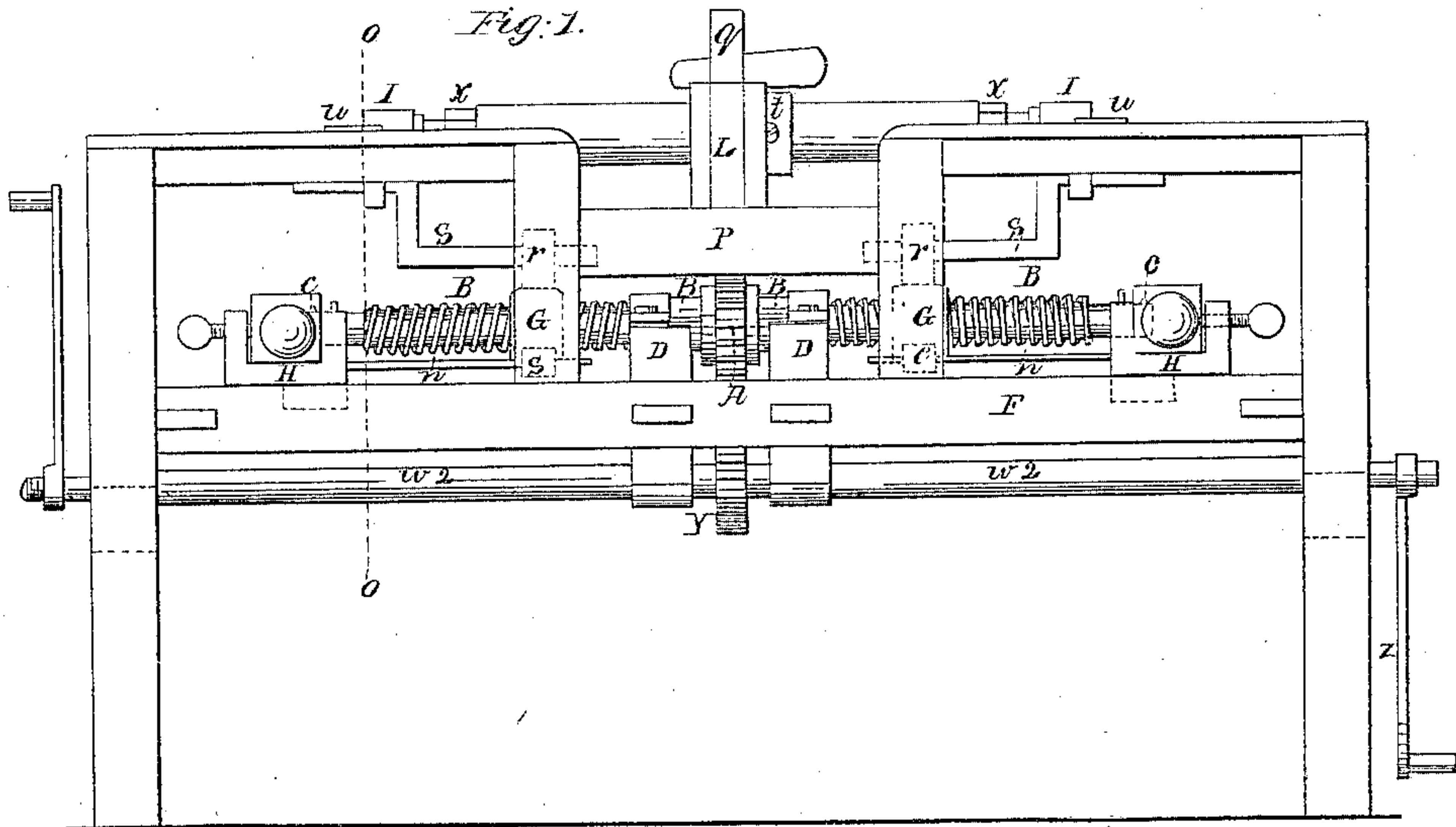


O. Thornley,
Making Wooden Screws.

No 8,414,

Patented Oct. 7, 1851.



UNITED STATES PATENT OFFICE.

O. THORNLEY, OF LEBANON, INDIANA.

MACHINE FOR CUTTING SCREWS ON POSTS AND NAILS OF BEDSTEADS.

Specification of Letters Patent No. 8,414, dated October 7, 1851.

To all whom it may concern:

Be it known that I, ORION THORNLEY, of Lebanon, in the county of Boone and State of Indiana, have invented a new and Improved Machine for Cutting Right and Left Screws in Bedsteads; and I do hereby declare that the following is a full and exact description of the same, reference being had to the annexed drawings, making part of this specification.

Figure 1 is a front elevation. Fig. 2 is a central transverse section on line *o o* of Fig. 1. Fig. 3 is a vertical or top view. Fig. 4 represents one end of the double screw axle with its cutter.

The principal feature of this invention consists of such an arrangement of mechanism as to cut accurately the screw threads upon both ends of a beam of a right and left screw bedstead, and at the same time, and by the same operation, cut the inverse thread of the sockets of two posts which are to receive the two screw tenons of the said rail.

A gear wheel A is mounted upon a central horizontal axle B, B, which has its bearings upon two cross beams D, D, the ends of which are supported by two horizontal side beams F, F, of a suitably constructed frame. This axle extends a foot or more beyond its bearings, to the right and left; and the two projecting parts of the axle are made to constitute right and left screws (B B;) that on the right being a right handed, and the other a left handed screw; and each extreme end is furnished with a V-shaped cutter (*c* Fig. 4). Upon each screw is mounted a traveler G having an inverse thread fitted to the screw. From the bottom of each traveler project two horizontal arms *e e* through each passes a horizontal connecting bar *n, n*, whereby each pair of arms are connected to a transverse carriage H the two ends of which rest upon the side beams F upon which it is made to slide.

Each carriage has a horizontal groove in the upper side thereof, of convenient size to receive one of the posts of a bedstead; and the connecting bars being perforated with pin holes and connected to the arms *e* by pins, and such positions as circumstances require, the carriage is made to slide laterally toward, or from the central wheel, according to the movement of the traveler. From the top of each traveler, projects a vertical arm or post *r*, through which passes

one end of a bent connecting bar S, the central part of which is vertical, while the two ends thereof are horizontal and perforated with pin holes; and the centerward end is connected to the vertical arm of the traveler, while the opposite end passes through another vertical arm which projects downward from a sliding saddle I. Each of the two saddles has two lateral guide wings *u u*, the edges of which are grooved, and which take to the edges of two parallel horizontal guide-plates *w, w*. The plates are attached to two head beams J, J, which are supported by suitable frame work. The body of each sliding saddle is of a semi-cylindrical form, the under side being hollow; and the centerward end is furnished with a V-cutter (*v* Fig. 3,) similar to others in common use for cutting screws in wood. Immediately over the central wheel A, and meshing therewith, is another equal gear wheel K, mounted upon a short hollow axle *t*, the bearings of which are attached to the two sides of a transverse, moveable beam L. This center beam rests upon two short, parallel beams P, P, to one of which, the rear end of the center beam is connected by a hinge *o*, and the front end of the beam is secured by means of a small post *q* which projects upward from the front beam P through the center beam; and through the head of this post, is inserted a horizontal key. The caliber of the hollow axle is of a proper size to receive one of the beams of a bedstead, which is to be secured therein by means of small radial screws, while the two end tenons of the beam, are supported by two concave slide rests *x x*. Immediately under, and meshing into the central wheel, is a small gear-wheel Y, mounted upon the center of a long shaft *w*, the ends of which are furnished with cranks *z z*.

A bedstead beam being adjusted in the hollow axle, and a post being placed in the groove of each carriage, the latter are to be so adjusted that the cutters *c* will come in contact with the posts, at the same moment that the cutters *v* come in contact with the ends of the tenons, the machine is put in motion, whereby the right and left screw threads of two tenons, and corresponding inverse threads in two posts, are accurately formed at the same time.

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

The trifurcated travelers G, in combina-

tion with the right and left screw axle B, B,
the carriage H, saddles I, hollow axle *t* and
cutters *c* and *v*, whereby the threads of two
beam tenons and two sockets are cut by one
5 and the same operation; the several devices
being constructed and arranged in the man-
ner and for the purposes herein set forth.

In testimony whereof I have hereunto
signed my name before two subscribing
witnesses.

ORION THORNLEY.

Witnesses:

DAVID HACKER,
ANDREW J. BOONE.