

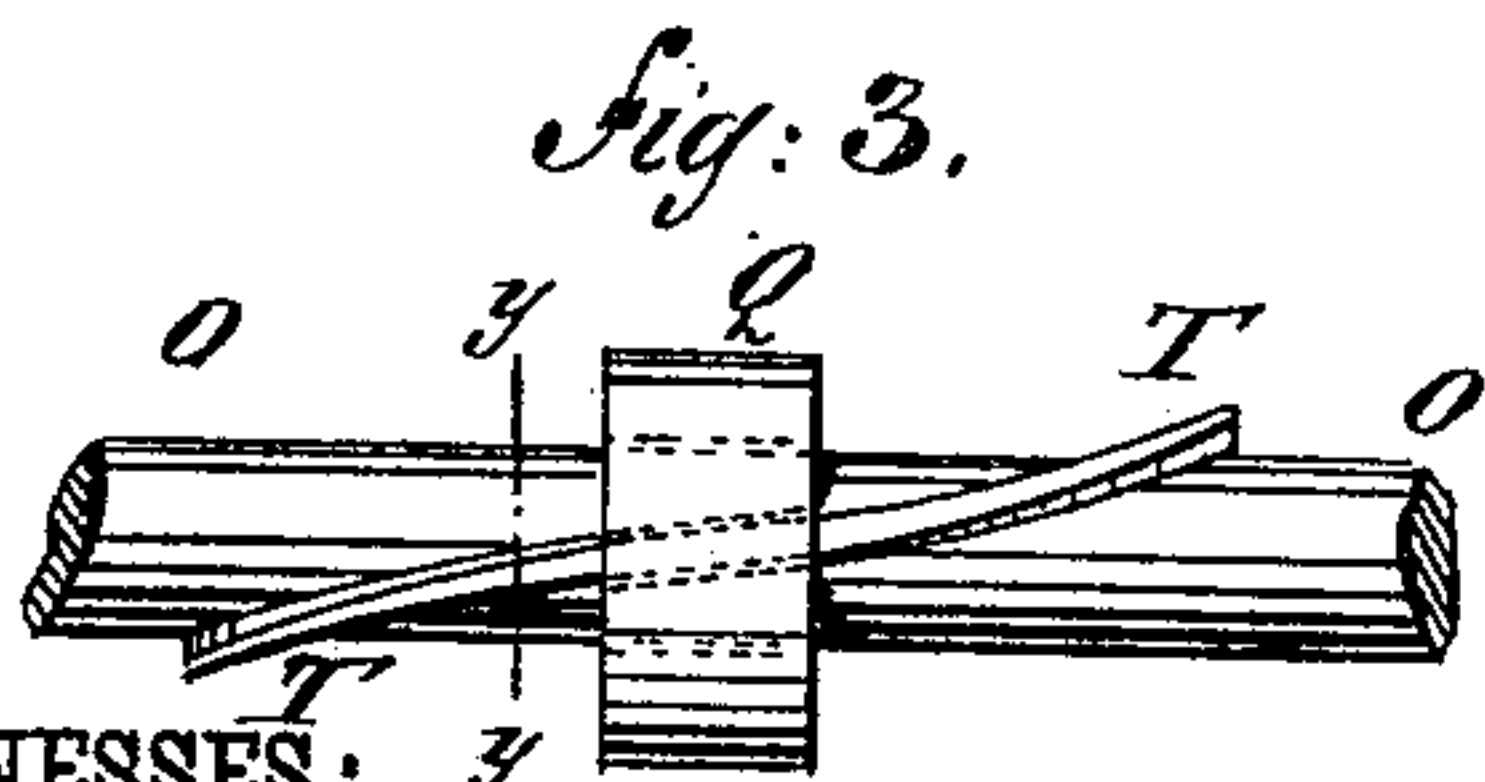
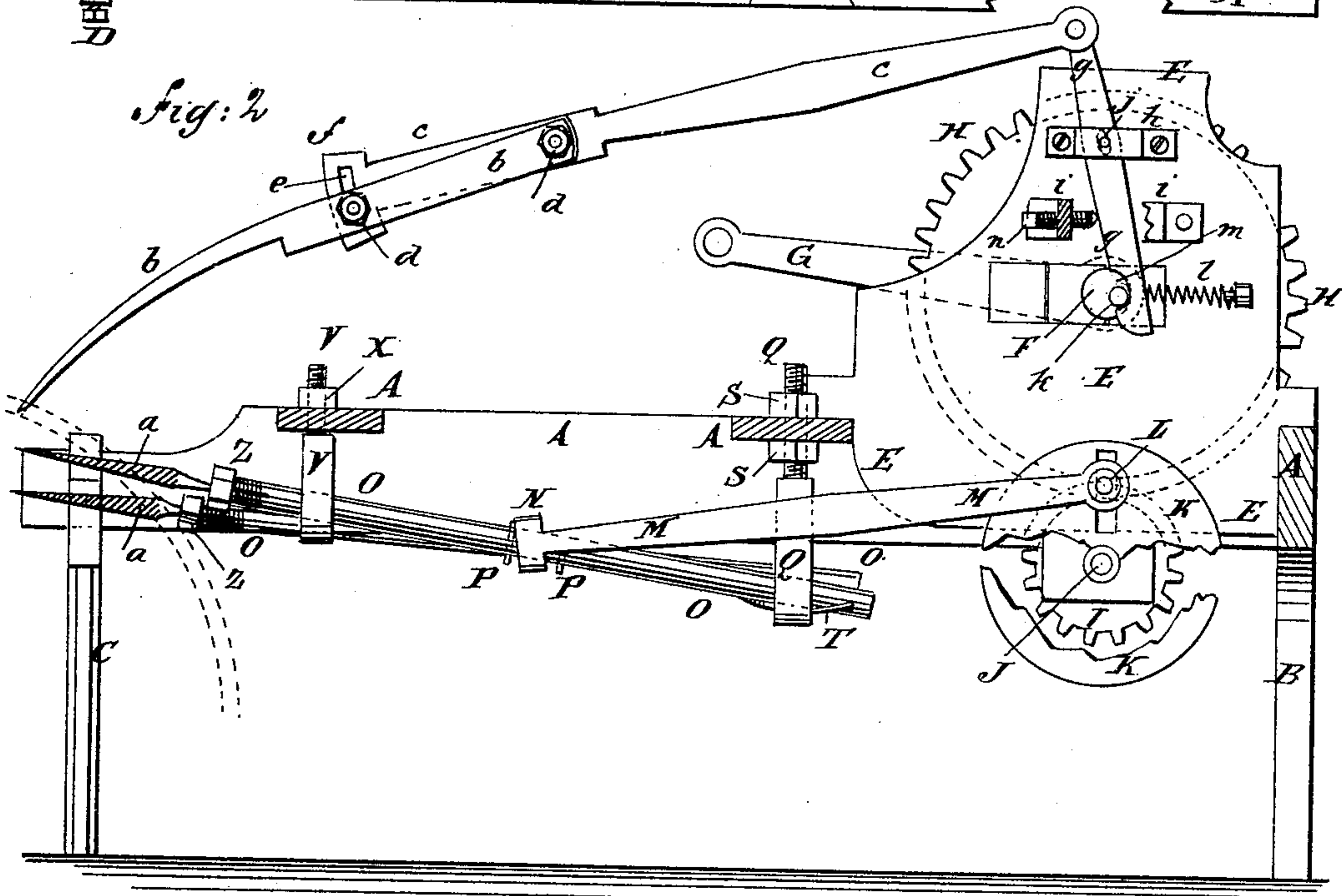
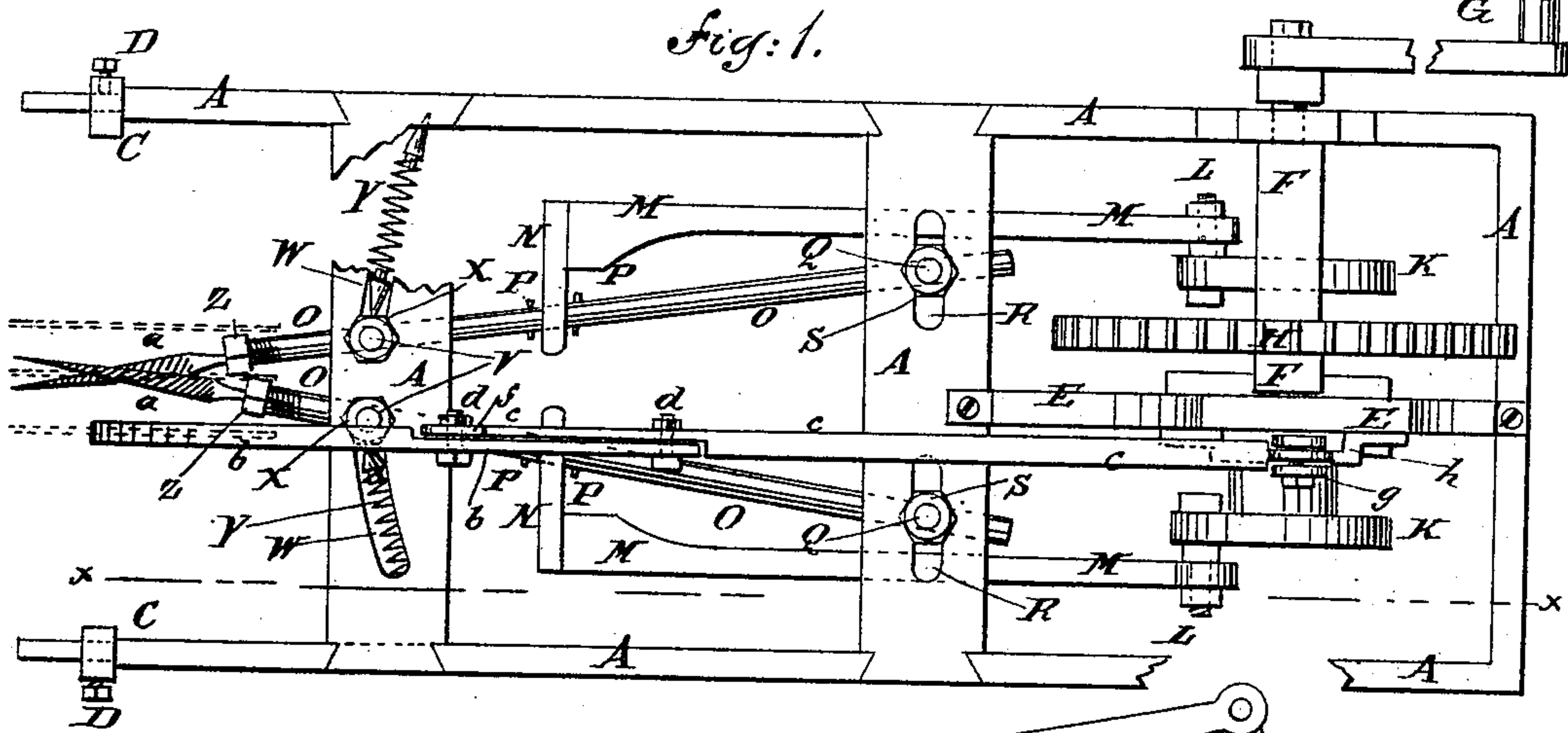
(No Model.)

J. S. MOSLEY & T. J. MANCILL.

MACHINE FOR FILING GIN SAWS.

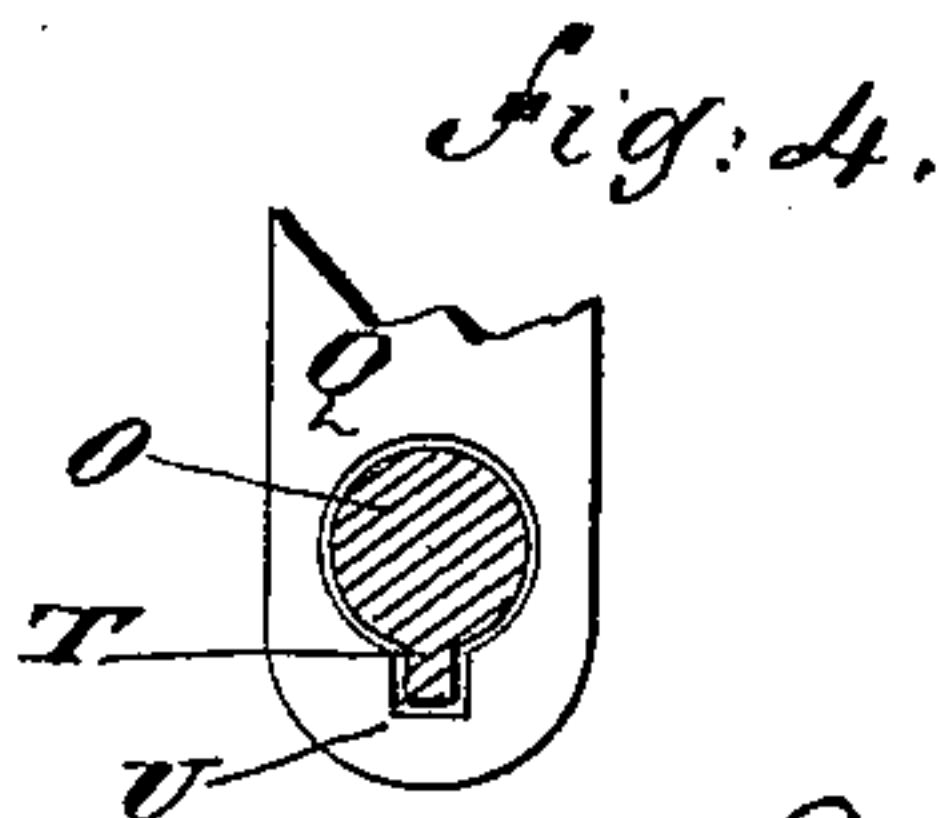
No. 328,423.

Patented Oct. 13, 1885.



WITNESSES:

Chas. Nida
C. Sedgwick



INVENTOR:

J. S. Mosley
T. J. Mancill
BY *Munn & Co*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

JAMES SEBRON MOSLEY AND THOMAS JEFFERSON MANCILL, OF ATLANTA,
MISSISSIPPI.

MACHINE FOR FILING GIN-SAWS.

SPECIFICATION forming part of Letters Patent No. 328,423, dated October 13, 1885.

Application filed May 12, 1885. Serial No. 165,211. (No model.)

To all whom it may concern:

Be it known that we, JAMES SEBRON MOSLEY and THOMAS JEFFERSON MANCILL, of Atlanta, in the county of Chickasaw and State of Mississippi, have invented a new and useful Improvement in Machines for Filing Gin-Saws, of which the following is a full, clear, and exact description.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of one of our improved machines for filing gin-saws, parts being broken away. Fig. 2 is a sectional side elevation of the same taken through the line *x x*, Fig. 1, parts being broken away. Fig. 3 is a bottom view of a part of one of the file-holders and its rear bearing, showing the spiral tongue for giving a rotary movement to the file-holder and file. Fig. 4 is a sectional elevation of the same taken through the line *y y*, Fig. 3.

The object of this invention is to provide machines for filing gin-saws, constructed in such a manner that the said gin-saws can be filed quickly and with accuracy, and which can be adjusted for filing gin-saws with teeth of different sizes, and at any required angle.

The invention consists in the construction and combination of various parts of the machine, as will be hereinafter fully described, and then pointed out in the claims.

A represents the frame of the machine, the rear end of which is supported upon stationary legs B. Upon the forward ends of the side bars of the frame A are formed long tenons to enter mortises in the upper parts of the legs C, which are secured in place upon the said side bars by set-screws D, so that the said legs C can be adjusted or detached, as may be required.

To the rear and middle cross-bars of the frame A, a little to one side of the central line of the machine, is attached a verticle plate, E, in bearings in the middle part of which revolves the inner end of the shaft F. The outer part of the shaft F revolves in bearings attached to a side bar of the frame A,

and to the outer end of the said shaft is attached a crank, G, by means of which motion is given to the machine.

To the inner part of the shaft F is attached a large gear-wheel, H, the teeth of which mesh into the teeth of the pinion-wheel I, attached to the shaft J. The shaft J revolves in bearings attached to the lower part of the vertical plate E, and to its ends are attached wheels K, which are slotted radially to receive the crank-pins L, so that the said crank-pins L can be adjusted nearer to or farther from the said shaft J, according as it is desired to give a shorter or a longer stroke to the pitmen M, pivoted to the said crank-pins L.

Upon the forward ends of the pitmen M are formed, or to them are attached, laterally-projecting collars N, through which pass the file-holders O. The file-holders O are kept from longitudinal movement in the collars N by pins P, passed through the said holders upon the opposite sides of the said collars N, or by collars secured to the said holders, so that the said holders O will receive a longitudinal movement from the movements of the said pitmen. The rear parts of the file-holders O slide in bearings in the lower ends of the hangers Q, the upper ends of which have screw-threads formed upon them, pass through slots R in the middle cross-bar of the frame A, and have nuts S screwed upon them above and below the said middle cross-bar, so that the rear ends of the file-holders O can be adjusted vertically or laterally to give any desired inclination to the files.

To the parts of the file-holders O that pass through the bearings in the hangers Q are attached, or upon them are formed, spiral tongues T, which slide in grooves U in the inner surfaces of the bearings in the said hangers in which the said holders O work, so that a rotary movement will be given to the file-holders O as they slide forward and back through the said bearings. The forward parts of the holders O slide in bearings in the lower ends of the hangers V, the upper ends of which have screw-threads formed upon them, pass up through curved slots W in the forward cross-bar of the frame A, and have nuts X

screwed upon them above the said cross-bar. The hangers V slide laterally in the slots W, to allow the files to adjust themselves to the teeth of the gin-saw being filed, and are held inward to hold the said files against the saw-teeth by spiral springs Y, interposed between the said hangers and the side bars of the frame A, and kept in place by guide-pins attached to the said hangers and side bars.

The forward ends of the file-holders O are perforated, are split, and have screw-threads formed upon them to receive the nuts Z to adapt them to receive and clamp the shanks of the files *a*, so as to hold the said files securely while being used.

One of the forward hangers, V, is made longer than the other, so that one of the files *a* will operate upon the gin-saw a few teeth in advance of the other to prevent the said files from interfering with each other when in use.

b is a finger, the forward part of which is slightly curved downward to bring it into proper position to engage with the teeth of the gin-saw being filed. The forward end of the finger *b* is grooved or forked to prevent it from sliding off the teeth laterally. The rear part of the finger *b* is secured to the forward part of the pitman *c* by two bolts, *d*, the rear one of which passes through holes in the said finger and pitman. The forward bolt, *d*, passes through a hole in the finger *b* and through a curved slot, *e*, in the vertical cross-head *f*, formed upon the forward end of the said pitman *c*, so that by loosening the said forward bolt the position of the said finger *b* can be adjusted as the angle and size of the gin-saw teeth may require. The rear end of the pitman *c* is hinged to the upper end of the lever *g*, which passes down along the side of the plate E, and through keepers *h* *i*, attached to the said plate. The lever *g* is hinged to the keeper *h* and plate E by a pin or bolt, *j*, and its lower end extends down past the end of the driving-shaft F, so as to be struck and operated at each revolution of the said shaft by a pin, *k*, attached eccentrically to the end of the said shaft.

The lower end of the lever *g* is held against the eccentric pin *k* by a spiral or other spring, *l*, secured at one end to the plate E and at its other end to the said lever *g*.

In the forward edge of the lower part of the lever *g* is formed a recess, *m*, in such a position that at each revolution of the shaft F the eccentric pin *k* will strike the edge of the said lever *g* and push back the lower end of the said lever. As the lower end of the lever *g* reaches the limit of its rearward movement the pin *k* drops into the recess *m*, allowing the said lower end of the lever *g* to be forced forward with a quick movement, while the pin *k* passes on through and out of the recess *m* without moving the said lever *g*. The rear-

ward movement of the lower end of the lever *g* forces the upper end of the said lever *g*, the pitman *c*, and the finger *b* forward, turning the gin-saw through the space of one tooth. The forward movement of the lower end of the lever *g* draws the finger *b* back with a quick movement, ready to be again pushed forward as the pin *k* again comes in contact with the lever *g*.

The forward movement of the lower end of the lever *g*, and consequently the length of stroke of the finger *b*, is regulated as the size of the gin-saw teeth may require by a set-screw, *n*, passing in through a screw-hole in the forward end of the keeper *i*, and against the end of which the said lever *g* strikes.

Having thus fully described our invention, we claim as new and desire to secure by Letters Patent—

1. In a machine for filing gin-saws, the combination, with the frame A B C and the vertical plate E, of the crank-shaft F, the gear-wheels H I, the shaft J, the crank-wheels K, carried by the said shaft, the pitmen M, connected with the crank-wheels, the file-holders O, connected with the said pitmen, and the hangers Q V, supporting the said file-holders, substantially as herein shown and described, whereby the file-holders will be vibrated by the revolution of the said crank-shaft, as set forth.

2. In a machine for filing gin-saws, the combination, with the shaft J, connected with the crank-shaft F by gear-wheels H I, and the pitmen M, connected with the file-holders O, of the wheels K, having radial slots, and the crank-pins L, substantially as herein shown and described, whereby the said pitmen can be adjusted to have a longer or a shorter stroke, as set forth.

3. In a machine for filing gin-saws, the combination, with the crank-shaft F, having eccentric pin *k* attached to its end, and the vertical plate E, of the lever *g*, engaging with the said eccentric pin, the pitman *c*, pivoted to the said lever, and the finger *b*, carried by the said pitman, substantially as herein shown and described, whereby the gin-saw will be turned forward at regular intervals, as set forth.

4. In a machine for filing gin-saws, the combination, with the vertical plate E and the lever *g*, operated by the eccentric pin *k*, attached to the end of the crank-shaft, and operating the pitman *c* and finger *b*, of the spring *l* and set-screw *n*, substantially as herein shown and described, whereby the movements of the said lever can be regulated and controlled, as set forth.

JAMES SEBRON MOSLEY.

THOMAS JEFFERSON MANCILL.

Witnesses:

JESSE THOMSON HERRING,
JOHN SIDNEY SANDERS.