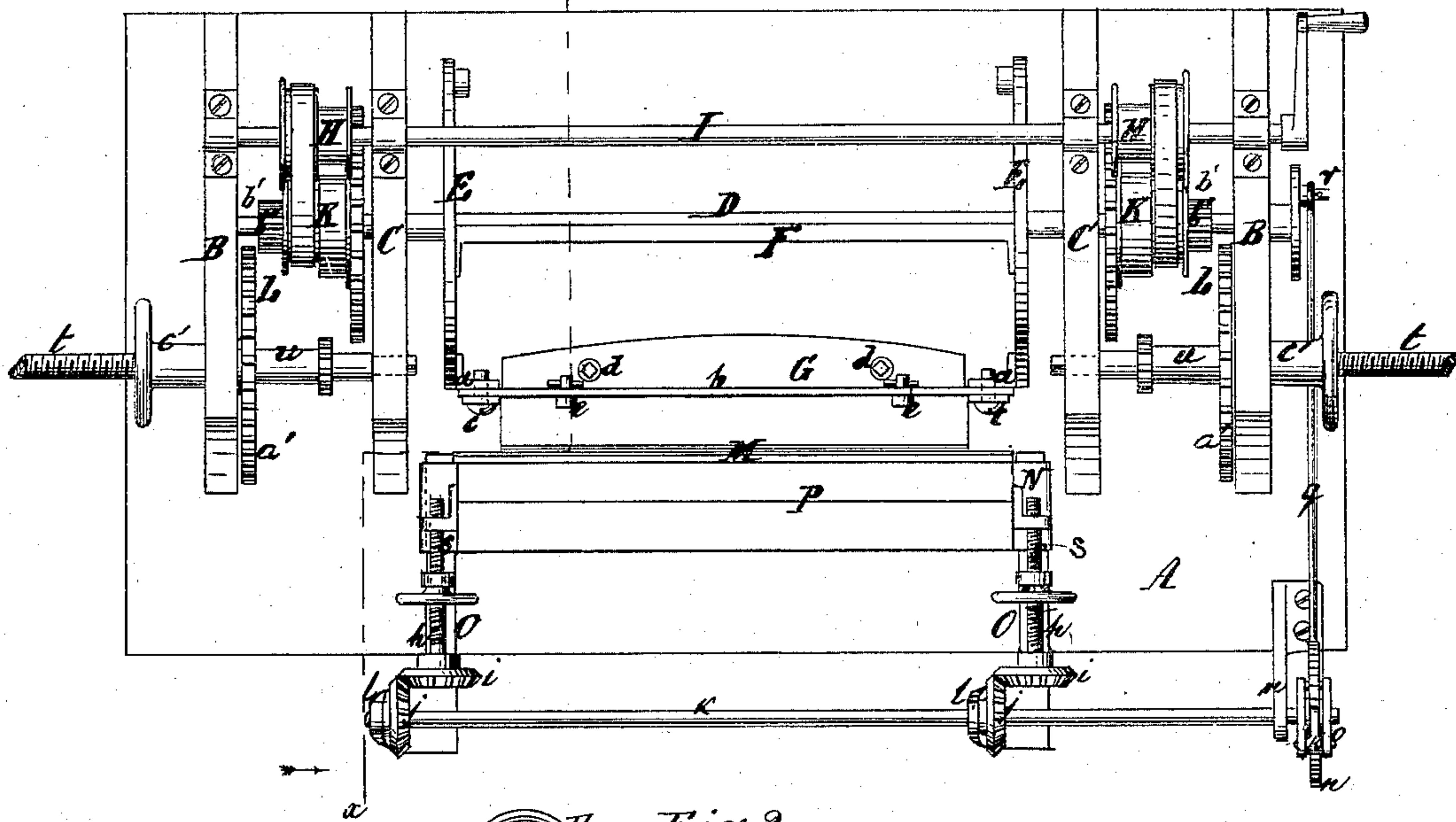


**J. N. SEIB.**  
**Veneer-Cutters.**

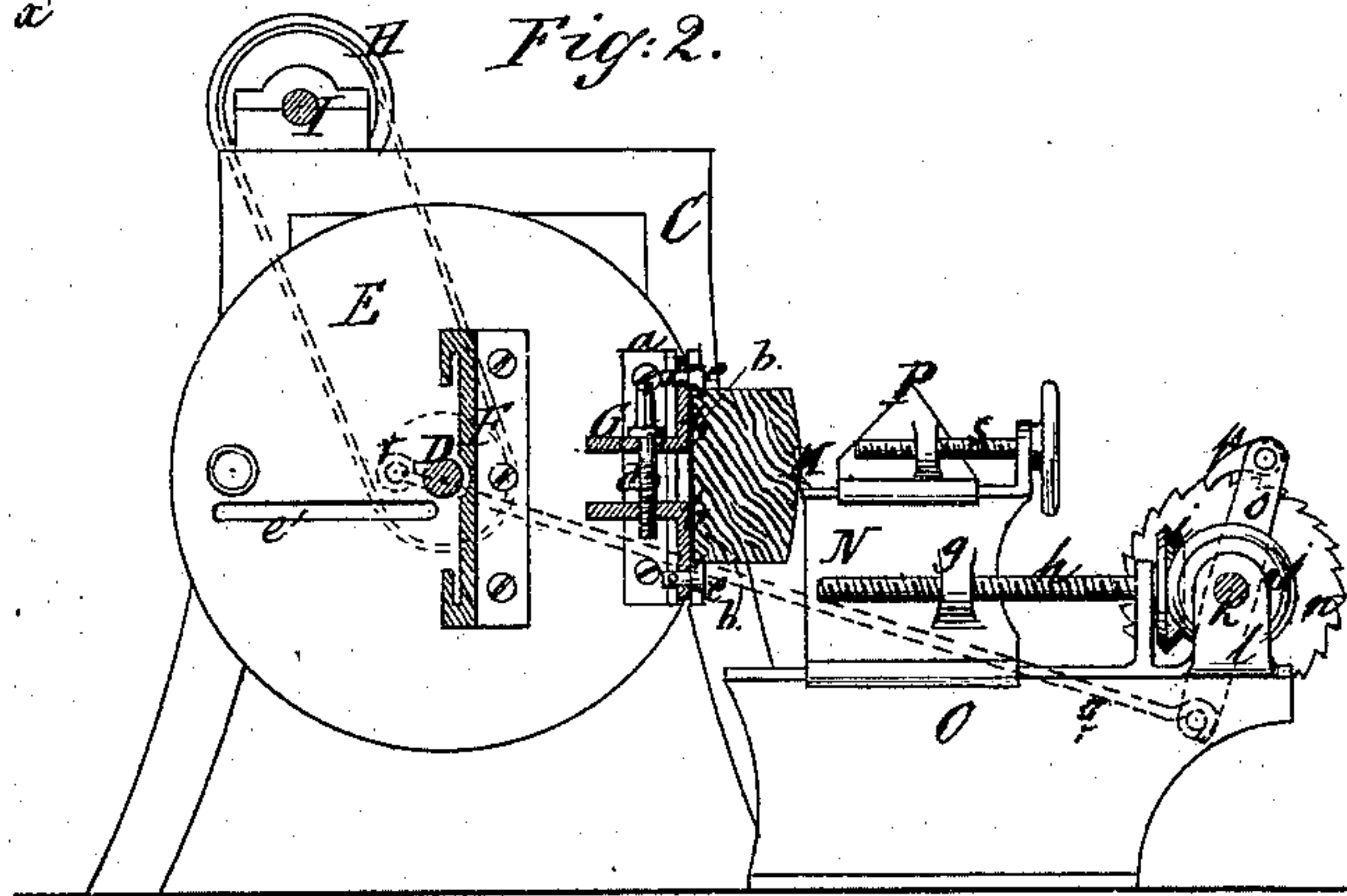
No. 137,489.

Patented April 1, 1873.

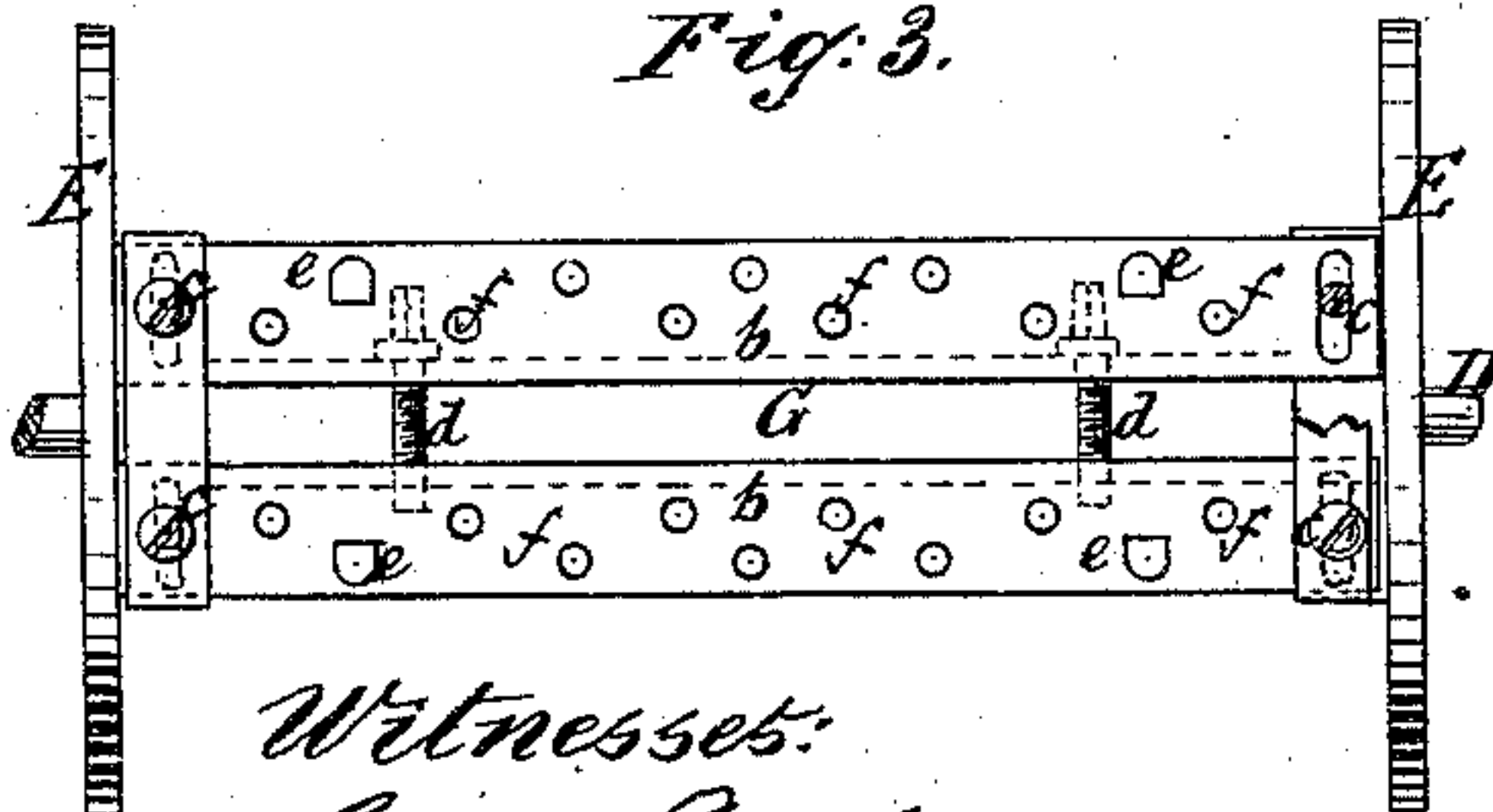
*Fig: 1.*



*Fig: 2.*



*Fig: 3.*



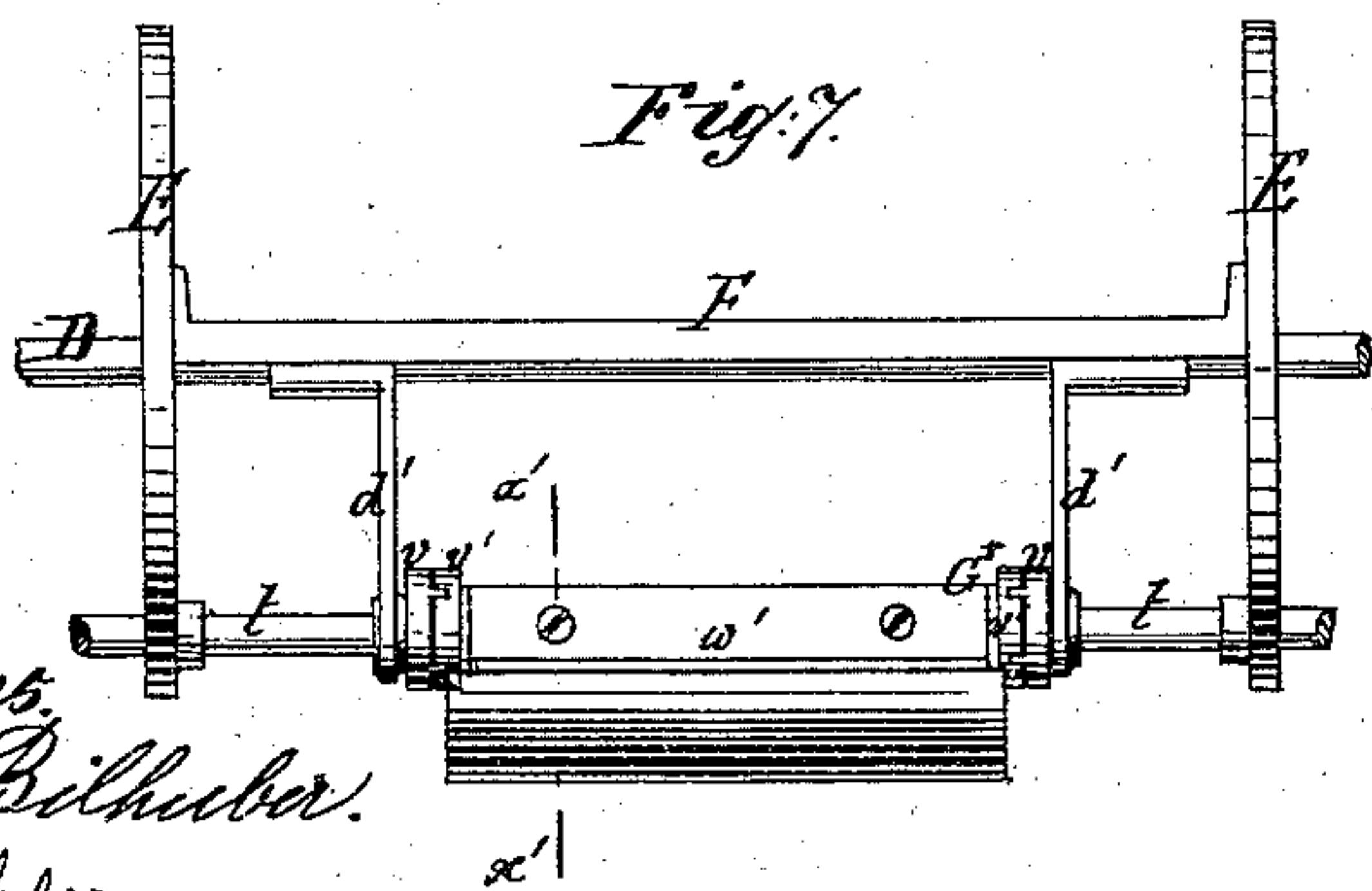
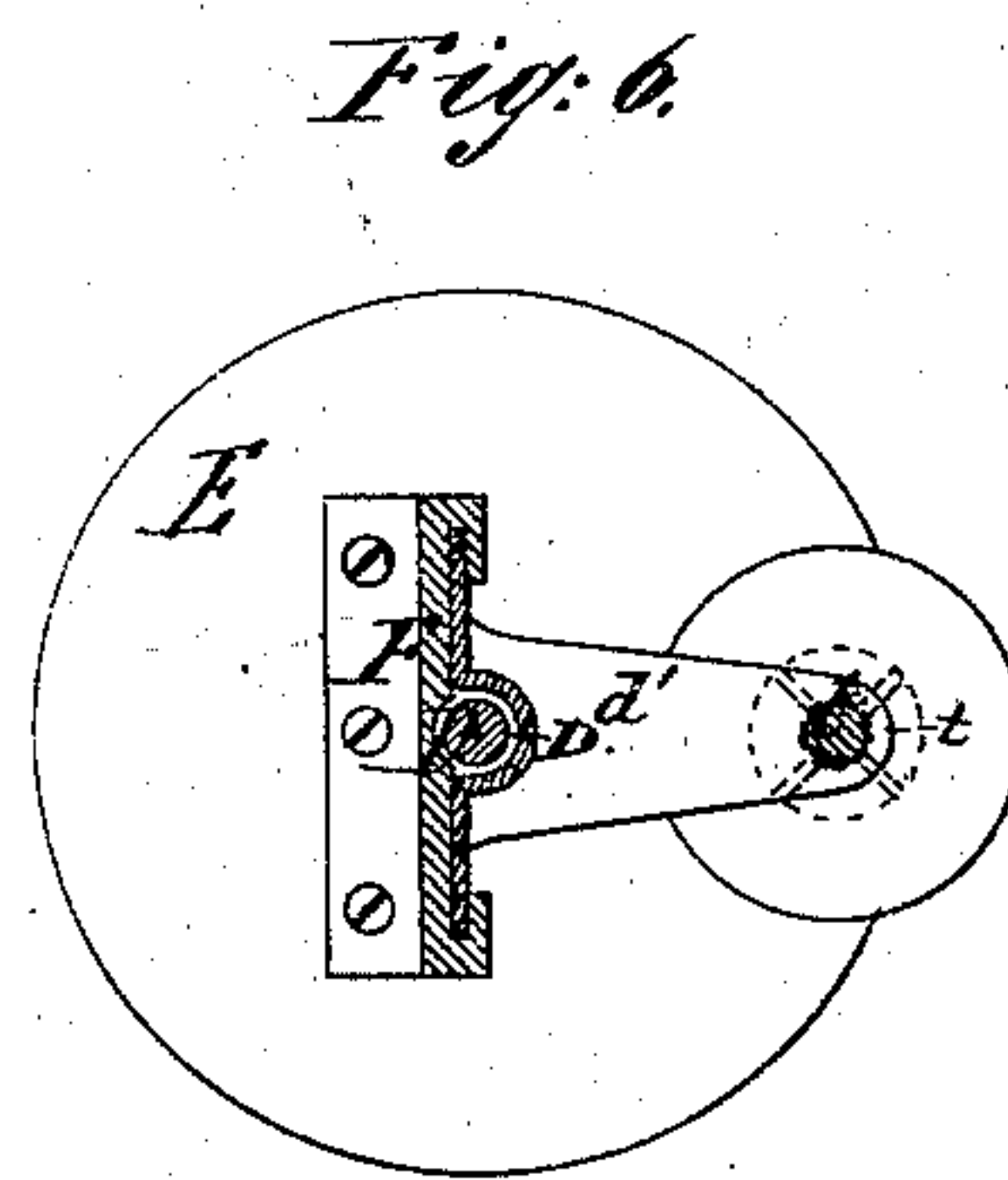
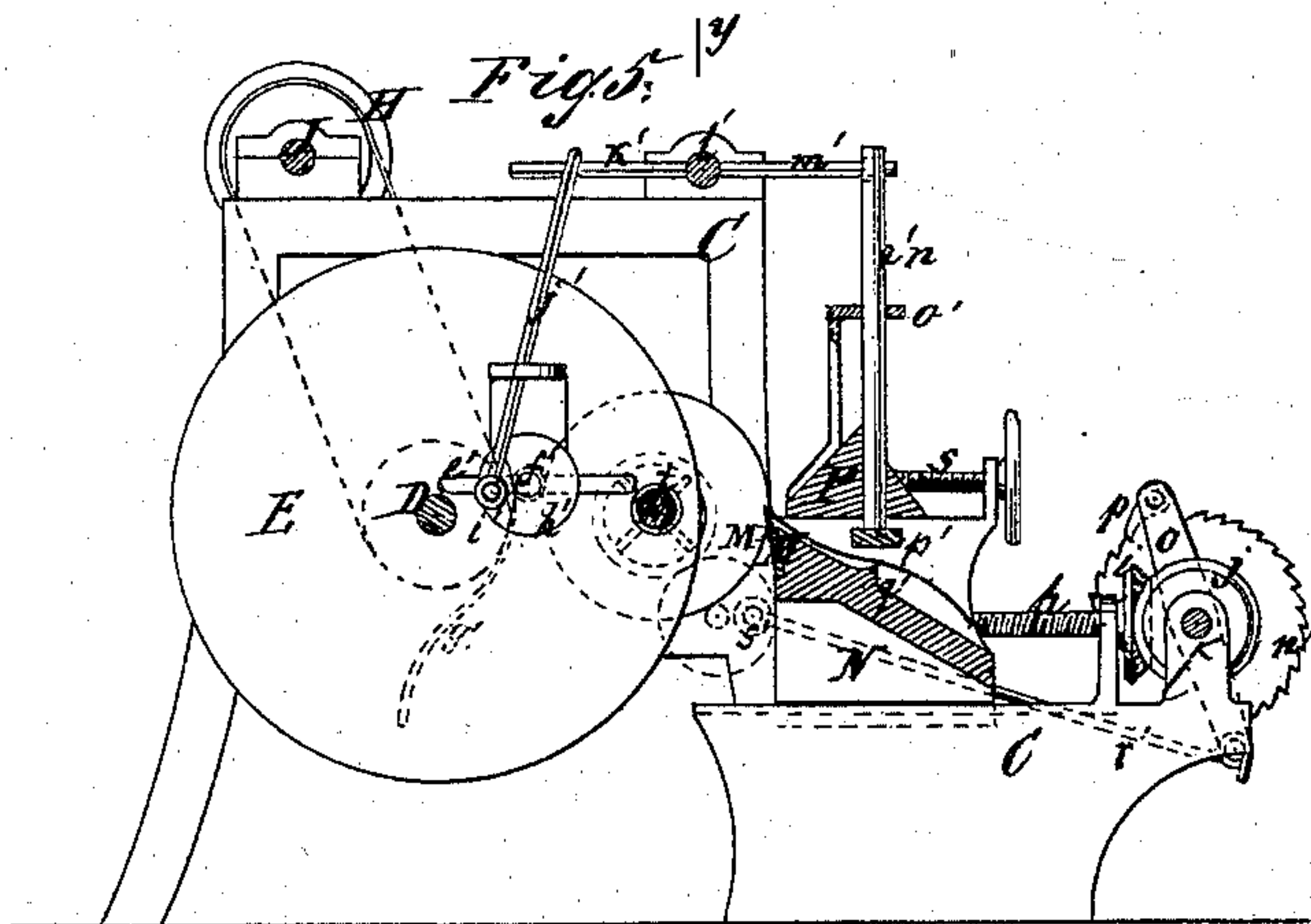
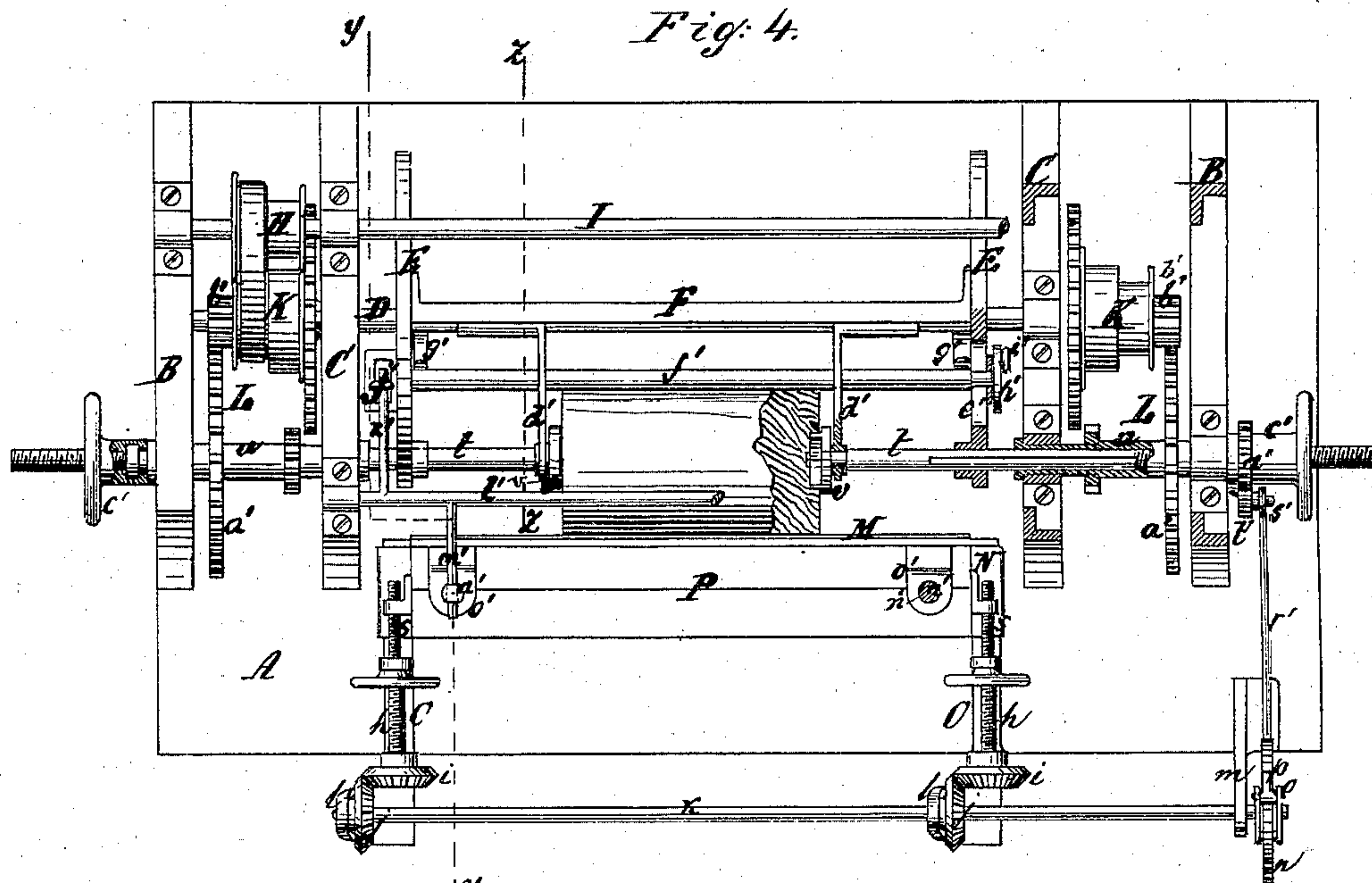
Witnesses:  
Ernst Bilhuber.  
Chas. Wahlen.

Invenitor:  
 John N. Leib  
 pr.  
 Van Santvoord & Haupt,  
 Attys

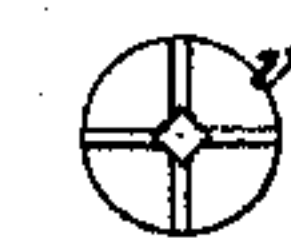
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*Fig. 9.*



*Fig. 8.*



Witnesses:  
Ernst Bilhuber.  
Chas. Wahlen.

Inventor:  
John N. Seib  
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Attys



# UNITED STATES PATENT OFFICE.

JOHN N. SEIB, OF BOSTON, MASSACHUSETTS.

## IMPROVEMENT IN VENEER-CUTTERS.

Specification forming part of Letters Patent No. **137,489**, dated April 1, 1873; application filed January 15, 1873.

*To all whom it may concern:*

Be it known that I, JOHN N. SEIB, of Boston, in the county of Suffolk and State of Massachusetts, have invented an Improvement in Veneer-Cutters; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which drawing—

Figure 1 represents a plan or top view of my machine when arranged to cut veneers from a flat log. Fig. 2 is a transverse vertical section of the same in the plane *x x*, Fig. 1. Fig. 3 is a front view of the log-carrier detached. Fig. 4 is a plan or top view of my machine when arranged for cutting veneers from a circular log. Fig. 5 is a transverse vertical section of the same in the plane *y y*, Fig. 4. Fig. 6 is a transverse section of the log-supporting mechanism when arranged for cutting veneers from a circular log. Fig. 7 is a plan or top view of the log-carrying mechanism when arranged for cutting veneers from a semicircular log. Fig. 8 is a transverse vertical section of the same in the plane *x' x'*, Fig. 7. Fig. 9 is a face view of one of the removable chucks which I use in cutting veneers from a circular or semicircular log.

Similar letters indicate corresponding parts.

This invention relates to a veneer-cutter of that class which I have described in my patent No. 130,754, dated August 20, 1872; and it consists in a certain combination of machinery whereby veneers can be cut either from a flat, or from a circular, or from a semicircular, log, and each piece of wood can be cut up to the best possible advantage.

In the drawing, the letter A designates the bed, which forms the support for my machine. From this bed rise two pairs of standards, B B and C C, which form the bearings for the principal working parts of my machine. These parts consist of a shaft, D, on which are mounted two disks, E, which are steadied by a broad traverse, F, and on the inner surfaces of which are secured lugs *a a*, for the purpose of supporting the log-carrier or stay-log G, Figs. 1, 2, and 3. This log-carrier consists of two angular plates or jaws, *b b*, which are fastened to the lugs *a a* by means of screws *c c* passing through

slots in the jaws, Fig. 3, so that the same can be made to move toward each other. Set-screws *d d*, Figs. 2 and 3, serve to force the two jaws *b b* toward each other; and in the faces of the jaws are secured dogs *e e*, which, when the log is adjusted between them, can be brought to bear on the same so as to retain it firmly in position. (See Fig. 2.) In each of the jaws *b b* are several holes, *f f*, in different positions, Fig. 3, so that the dogs *e e* can be adjusted to suit logs of different size. By this arrangement the log can be conveniently fastened to the jaws of the log-carrier, and then the log-carrier can be secured to the lugs *a a* of the disks E E in the proper position to be acted on by the knife. The shaft D receives a revolving motion by belts extending from pulleys H on the driving-shaft I round under the pulleys K mounted on the shaft D, and with these pulleys are combined back-gears L, similar to those used on turning-lathes, so as to impart to the shaft D a slow and powerful motion. The knife M is secured on a carriage, N, which slides on guide-ways O toward and from the shaft D. From the ends of this carriage project lugs *g*, Fig. 2, which are tapped to receive the feed-screws *h*; and on the front ends of these feed-screws are mounted bevel-wheels *i*, which gear in bevel-wheels *j* mounted on a shaft, *k*, that has its bearings in standards *l* secured to the guide-ways O, and in a standard, *m*, which rises from the bed of the machine. (See Fig. 1.) On the outer end of this shaft is fastened a ratchet, *n*, and a lever, *o*, which swings freely on said shaft, carries a pawl, *p*, that engages with the teeth of the ratchet-wheel. The lever *p* of pawl *o* connects by a rod, *q*, with an eccentric wrist-pin, *r*, secured in a disk which is mounted on the shaft D, so that for each revolution of this shaft the ratchet-wheel *n* is propelled a few teeth, and the knife is moved toward the shaft D or toward the log after each cut. On the knife-carriage N is fitted a cap, P, which can be adjusted toward and from the knife by screws *s*. (See Figs. 1 and 2.)

When the shaft D revolves the log-carrier G is moved past the knife, and as the knife is gradually fed up toward the shaft D the log is cut up in veneers, the thickness of which depends upon the amount of the feed-motion im-



parted to the knife. By this arrangement the log is not, strictly speaking, carried past the knife in a straight line; but the circle in which it moves is so large that the cut does not deviate materially from a straight cut.

If I desire to cut veneers from a circular log, I secure this log between screw-rods  $t t$ , Figs. 4 and 7, which are feathered in hollow shafts  $u u$ , that have their bearings in the standards  $B B C C$ . The inner ends of the screw-rods are square and made to fit into corresponding sockets in chucks  $v v$ , (see Figs. 4, 7, and 9,) which are constructed with radiating ribs, Fig. 9, to engage with grooves made in the ends of the log. These chucks are detachable from the screw-rods, so that they can be conveniently secured in the ends of the log before the log is introduced in the machine; and, furthermore, the chucks can be changed according to the diameter or to the nature of different logs. On the hollow shaft  $u$  are mounted gear-wheels  $u'$ , which form part of the back gear  $L$ , previously described, and which can be thrown in gear with pinions  $b'$ , secured to the cone-pulleys  $K$  which turn loosely on the shaft  $D$ , so that, by imparting motion to this shaft, a slow and powerful motion is transmitted to the hollow shafts  $u$ , and through them to the screw-rods  $t t$  and to the log secured between said screw-rods. On the outer ends of the tubular shafts  $u u$  are secured caps  $c' c'$ , in such a manner that they can be turned freely without being permitted to move in the direction of the length of said shafts, and these caps are tapped to fit threads on the screw-rods, so that by turning said caps the screw-rods are caused to slide in or out in the tubular shafts. The screw-rods pass through holes in the disks  $E$  and also through brackets  $d' d'$ , which are secured to the traverse  $F$ , Fig. 6, and which can be adjusted so that they will support the screw-rods close behind the chucks which sustain the log. In the disks  $E E$  are slots  $e'$ , (see Figs. 4 and 5,) which form the guides for a shaft,  $f'$ , that is pressed up against the surface of the log by means of springs  $g'$  which are fastened to the disks  $E$ . This shaft being held in close contact with the log serves to steady the same; and, furthermore, it receives a revolving motion by frictional contact. On the ends of said shaft are mounted disks  $h'$ , in which are secured eccentric wrist-pins  $i'$ , which connect, by rods  $j'$ , Fig. 5, with arms  $k'$ , extending from a rock-shaft  $l'$  that has its bearings in the upper parts of the standards  $C C$ . From this rock-shaft extend arms  $m'$  which engage with slides  $n'$  that extend down through holes in the cap  $P$ , and are steadied by brackets  $o'$  secured to said cap. On the lower ends of the slides  $n'$  is fastened a pad,  $p'$ , Fig. 5, and as the rock-shaft  $l'$  oscillates this pad is depressed upon a cutting-edge,  $q'$ , formed on the back of the knife-carriage, and so situated that the veneer as it is cut from the log passes down over the same.

The object of this mechanism is to separate the veneer cut from the log into sheets of suitable width, and, since the motion of the shaft  $f'$  depends upon the diameter of the log, the sheets thus produced are of uniform width. The diameter of the shaft  $f'$  may be increased to any desired extent, and its surface may be made rough so as to insure its motion. In cutting veneers from a circular log, as above described, the feed-motion of the knife is produced by a rod,  $r'$ , which extends from an eccentric wrist-pin,  $s'$ , to the lever-pawl  $o p$ , Figs. 4 and 5, said eccentric wrist-pin being fastened in a gear-wheel,  $t'$ , which gears in a gear-wheel,  $u'$ , mounted on one of the tubular shafts  $u$ . When a semicircular log is to be substituted for the circular log, I use a stay-log,  $G^*$ , such as shown in Figs. 7 and 8. This stay-log consists of a U-shaped plate of metal, the base of which is provided with several holes to receive screws, by means of which the same is fastened to the log. On the ends of said U-shaped plate are secured disks  $v'$  provided with radiating grooves to correspond to the ribs of the chucks  $v$ , so that when the stay-log  $G^*$  is brought in line with the screw-rods  $t t$  and said screw-rods are screwed up, the chuck  $v$  can be made to engage with the disks  $v'$ , Fig. 7. On the advancing flange of the stay-log  $G^*$  is secured an L-shaped rest,  $w'$ , which bears against the back of the log and serves to steady the same against the action of the knife, and to prevent it from becoming loose on the stay-log. As the log is cut away said rest must be decreased in height; or, if the diameter of the log is reduced to a sufficient state, the rest may be entirely removed.

By this machine I am enabled to cut up logs into veneers to the best possible advantage. If I have a log which is best cut straight I fasten it to the disks  $E$ ; but, if the log will cut to better advantage when it is left circular or semicircular, my machine can be readily adjusted for either of these purposes.

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

1. The combination of a rest,  $w'$ , with the stay-log  $G^*$ , constructed and arranged substantially as and for the purpose described.
2. The combination of the adjustable brackets  $d'$  with the screw-rods  $t$  and the chucks  $v$ , substantially as and for the purpose specified.
3. The shaft  $f'$ , bearing on the surface of the circular log and connecting with a rock-shaft that actuates slides  $n'$  carrying a pad,  $p'$ , in combination with a cutting-edge,  $q'$ , substantially as and for the purpose shown and described.

JOHN N. SEIB.

Witnesses:

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E. F. KASTENHUBER.