

S. Roberts,
Dressing Staves.

N^o 34,847.

Patented Apr. 1, 1862.

Fig. 2.

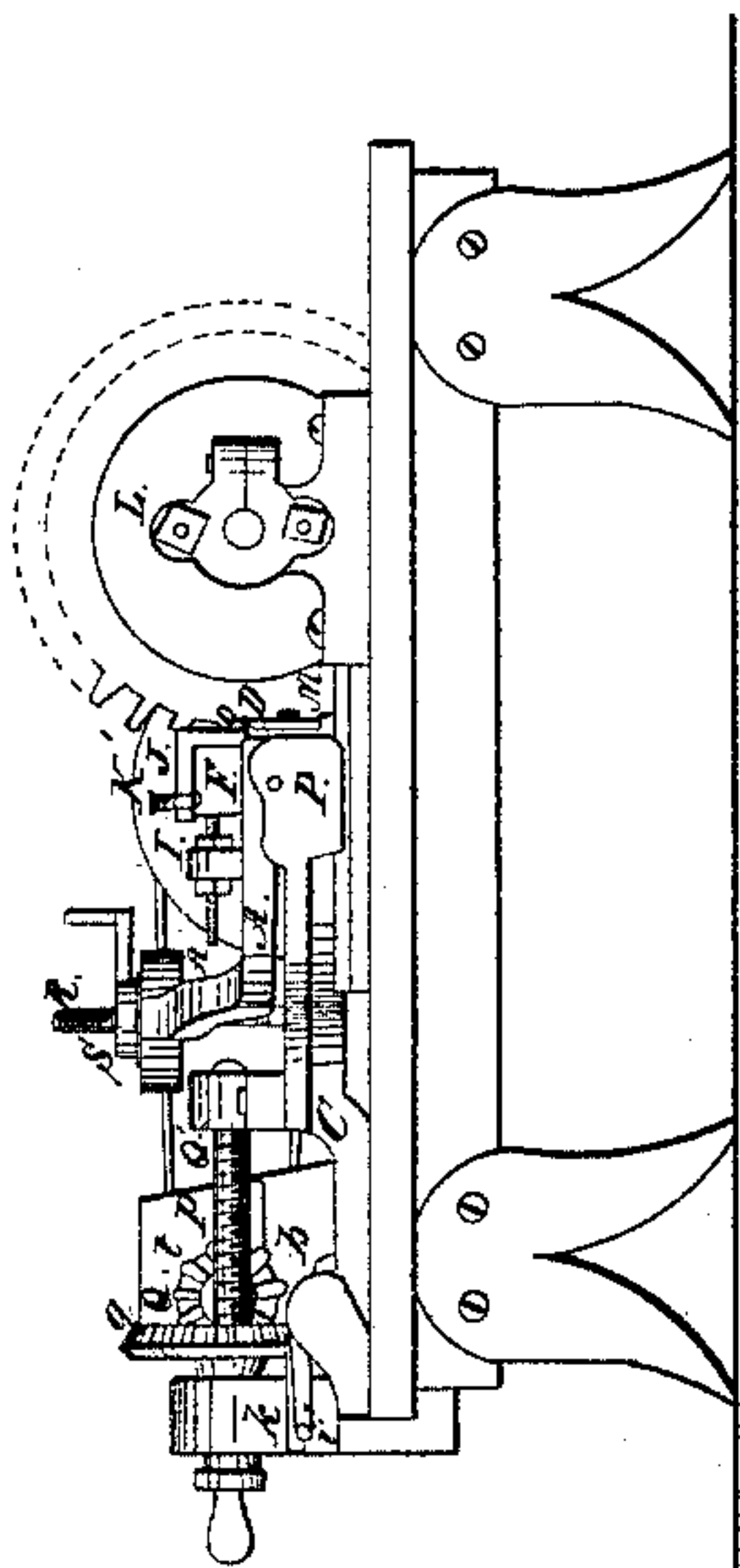


Fig. 4.

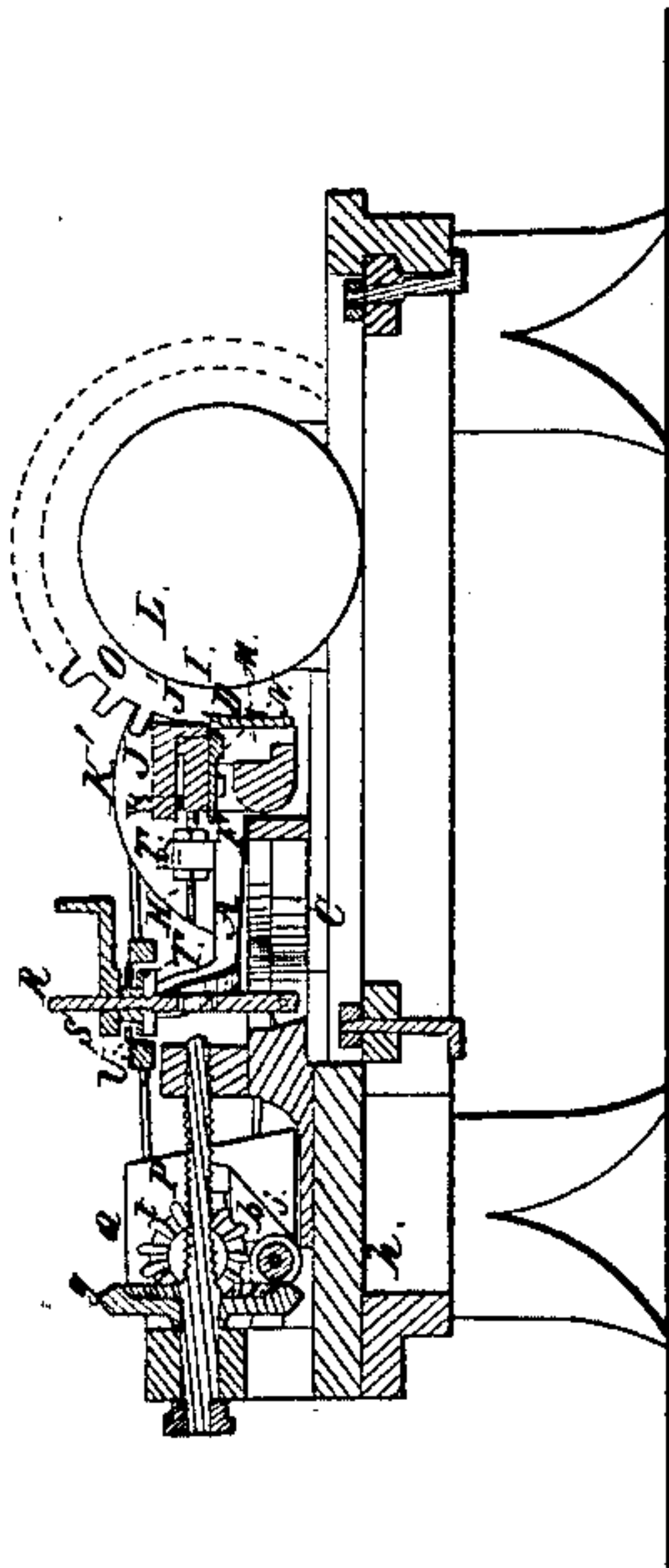


Fig. 6.

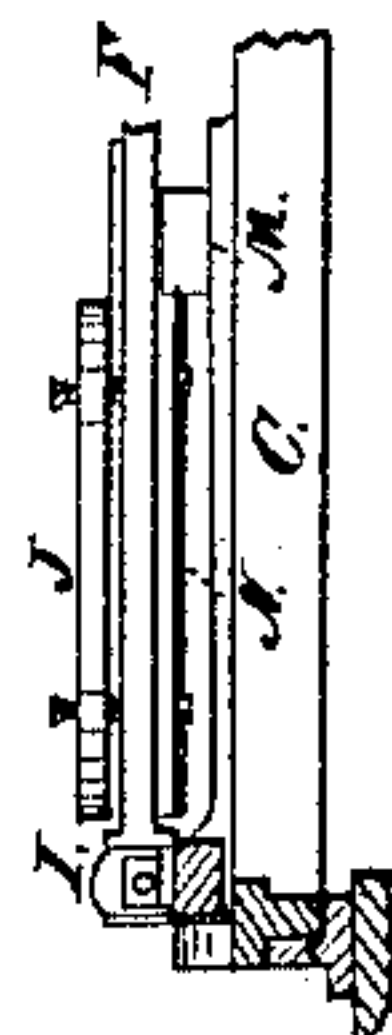


Fig. 5.

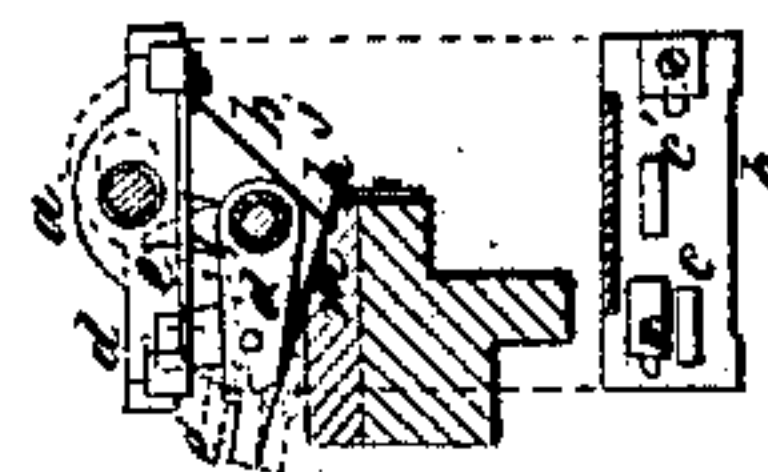


Fig. 1.

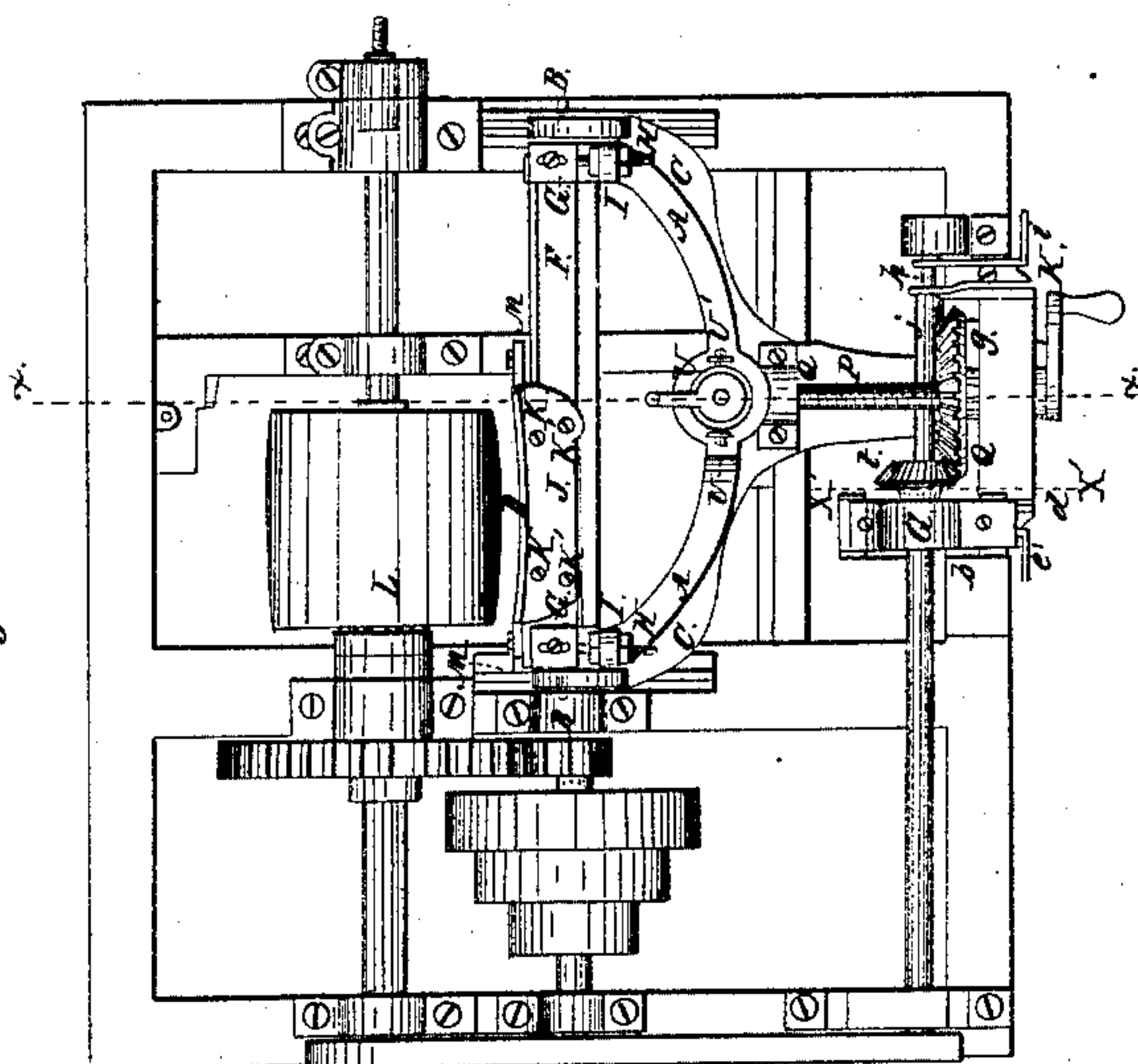
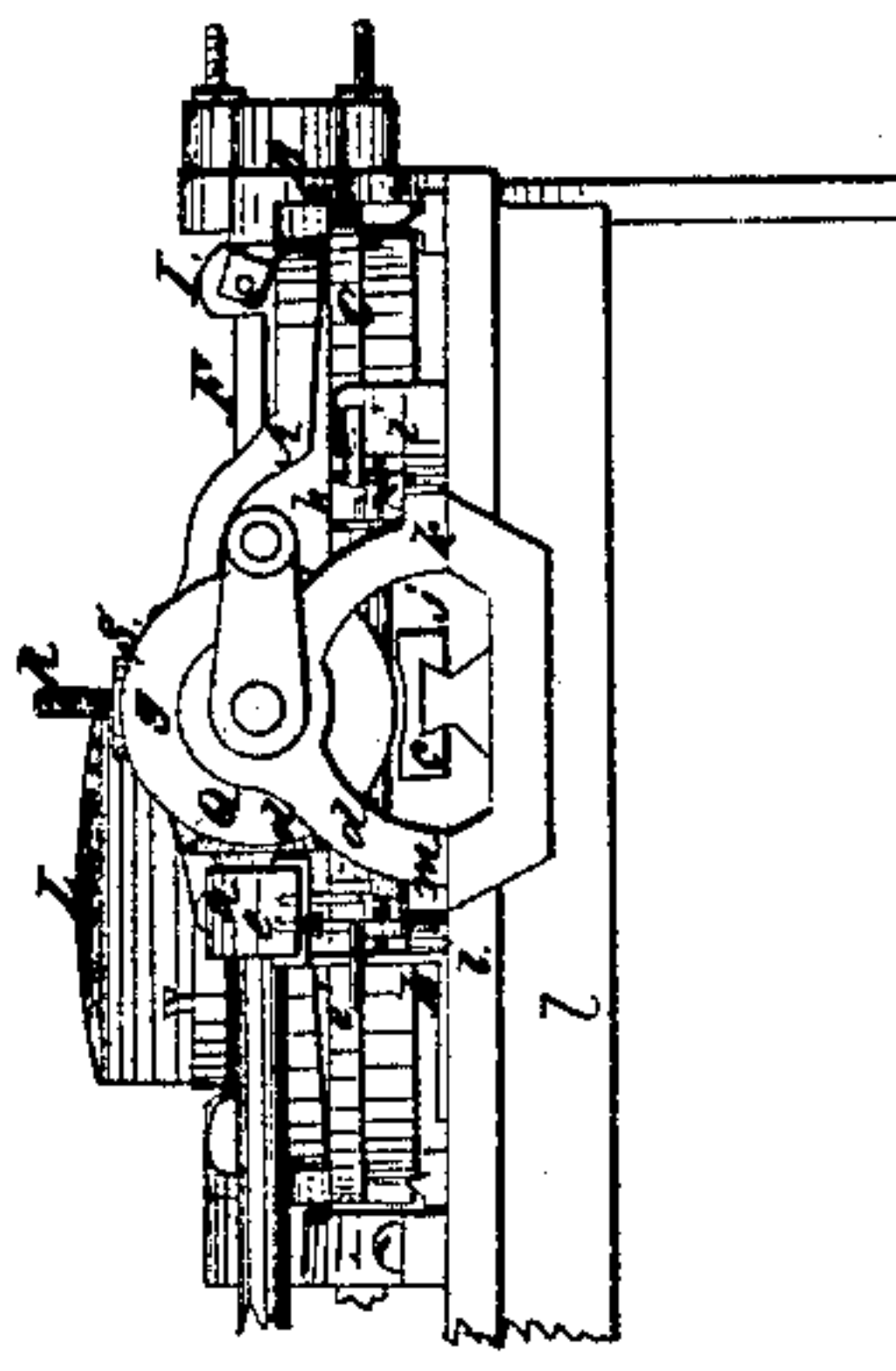


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

SHERIDAN ROBERTS, OF CLEVELAND, OHIO.

IMPROVEMENT IN BARREL-MAKING MACHINES.

Specification forming part of Letters Patent No. 34,847, dated April 1, 1862.

To all whom it may concern:

Be it known that I, SHERIDAN ROBERTS, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented new and useful Improvements in a Machine for Making Barrels and Kegs; and I do hereby declare that the following is a full and complete description of the construction and operation of the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a plan view. Fig. 2 is a side view. Fig. 3 is a sectional view of the front end; and Fig. 4 is a transverse section in the direction of the lines $x\ x$, Fig. 1. The detached sections, Figs. 5 and 6, will be referred to in the description.

Like letters refer to like parts in the several views.

The nature of my invention relates to the construction and arrangement of certain mechanical devices for the purpose of cutting from a log continuous sheets or sections of any given width and thickness for barrels, kegs, &c., as hereinafter described.

This machine is designed to make the body part of the barrels and kegs described in the United States patents granted to me under date of October 16, 1860, February 26, 1861, and May 19, 1861. The primary motion and gearing may be that ordinarily used. The adjustable stock A is pivoted at B B to the sliding sash C, which pivots form the axis in the rear of the knife D and gage E, Figs. 1 and 2. The gage-bar F is connected to the stock by set-screws G G, Fig. 1, which pass through a slot in the bar and screw into the stock. From each end of the bar extends a screw, as seen at H H, which passes through a lug at I I, on each side of which are jam-nuts and screws. The gage-bar is moved and set so as to adjust the curved gage J to the log at either or both ends. This gage is connected to the bar F by screws at K K, Fig. 1, or its equivalent, and by means of the set-screws K' K' the concave face J', Fig. 4, may be adjusted to the periphery of the log L.

At each end of the knife attached to the sash C is a block M, as seen in Figs. 1, 2, and 3. These two blocks and two screws support and hold the knife in place. On the under side of the gage-box F is connected by set-screws or otherwise the guide N, Figs. 4 and 6, and which may be moved to or from the

knife D, so as to adapt the space O between the knife and guide to the thickness of the piece being cut off from the log and prevent its checking or splitting as it is being cut off. The knife D, gage J, and guide N are so attached that they can be readily removed and others substituted and connected in the same way, according to the length of the log. The knife is fed up to the log by the screw P and operated by the miter-wheels G. The screw works in the nut Q', which is connected with the sash C, which slides upon ways, and upon which sash the cutting and gaging apparatus is mounted.

To the sash is pivoted the screw R at the lower end. The screw-nut S is constructed with a collar T on the under side, so as to form a circular groove around the body of the nut for the reception of the yoke U, Figs. 1 and 4, which is connected to the stock A by arms or trunnions U' U', so as to form an adjustable joint in raising and lowering the sash by the screw and nut R and S, which is the required object in adjusting the knife D to the side of the log when cutting.

It will be noticed that the edge of the knife is above the center of the log, and that the face of the gage J is a little in the rear of the knife in proportion to the thickness of the piece cut off from the log. As the log decreases in size, it is desirable that the same relative position of the knife and gage to the log should be retained until the log is cut up. The gage J touches or bears upon the log in such a way as to prevent the knife D from running into the log upon the principle of an ordinary plane; but as the log decreases in size it will consequently recede from the face of the gage, which leaves the knife liable to run into the log; but this is prevented by the gage keeping up to the face of the log by means of the screw R. By turning the nut-crank the gage J may be turned to or from the log, according to its diameter. As the sash works upon the axis or pivot P for this object as the knife is being fed up to the log, the screw R is operated so as to keep the gage to the decreasing periphery of the log.

The knife D is concave, with a curved cutting-edge, so as to cut off the pieces from the log in the form of a keg or barrel. The face of the gage J is also concave, so as to correspond to the log L in the form of a barrel or keg. By this arrangement the knife is ad-

vanced in a right line to the log with the gage, and at the same time it is depressed and inclined to the log as its diameter decreases.

Fig. 5 is a detached section of the apparatus for throwing in and out of gear the feeding-screw works. The box *a* is so connected to the stand *b* as to slide, as indicated in Fig. 5. In the under side of the stand *b* are two slots *c c'*. Through the slot *c* passes the arm *d* of the lever of *d'*, and the arm *e* of the lever *e'* passes through the slot *c'*. The arms *d* and *e*, after passing through each slot, fit into a mortise in the under side of the box *a*, as is indicated in Fig. 5. Thus the arms will so move the box as to throw the pinions *f* in and out of gear with the wheel *g*. The lever *e'* is upon the same shaft *h* as the lever *i*, and the lever *d'* is attached to the sleeve *j* upon the shaft *h*. The lever *k* is also attached to the sleeve. The levers *i* and *k* are for the convenience of persons near that part of the machine, as they will perform the same functions as the levers *e'* and *d'*. The spring *l* under the lever *e'*, acting upon the lever, throws the pinion out of gear, and by pressing down the lever *e'* the pinion is put in gear, and as soon as it is in gear the arm *d*, by the action of the spring *m*, Figs. 3 and 5, is forced into a mortise or slot in the under side of the box, as indicated in Fig. 5, and thereby held in gear, and by pressing down the lever *d*, so as to withdraw the arm *d* from the slot in the box, the spring

l, then acting upon the lever, causes the arm *e* to slide back the box, as before stated.

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

1. The adjustable stock *A*, so arranged that the axis or pivot of said stock shall be in the rear of the knife and gage, in combination with the screw *R* and nut *S*, so that in adjusting the knife and gage to the log the knife-edge can be inclined and depressed at the same time as the knife-sash *C* moves in a right line toward the log, in the manner specified.

2. The gage-bar *F*, with its adjusting-screws, sliding stock *c*, the adjustable yoke *U*, and screw *R*, in combination with the sash *C*, as set forth.

3. The adjustable stock *A*, pivoted to the sliding sash *C* in the rear of the knife *D* and gage *J*, when operating conjointly, in the manner and for the purpose specified.

4. The curved knife *D*, knife-gage *J*, with its curved face and gage-guide *N*, in combination with the adjusting-stock, as described.

5. The arrangement of the sliding box *a*, levers *e' d'*, in combination with the springs *l m* and sleeve *j*, when arranged as and for the purpose specified.

SHERIDAN ROBERTS.

Witnesses:

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