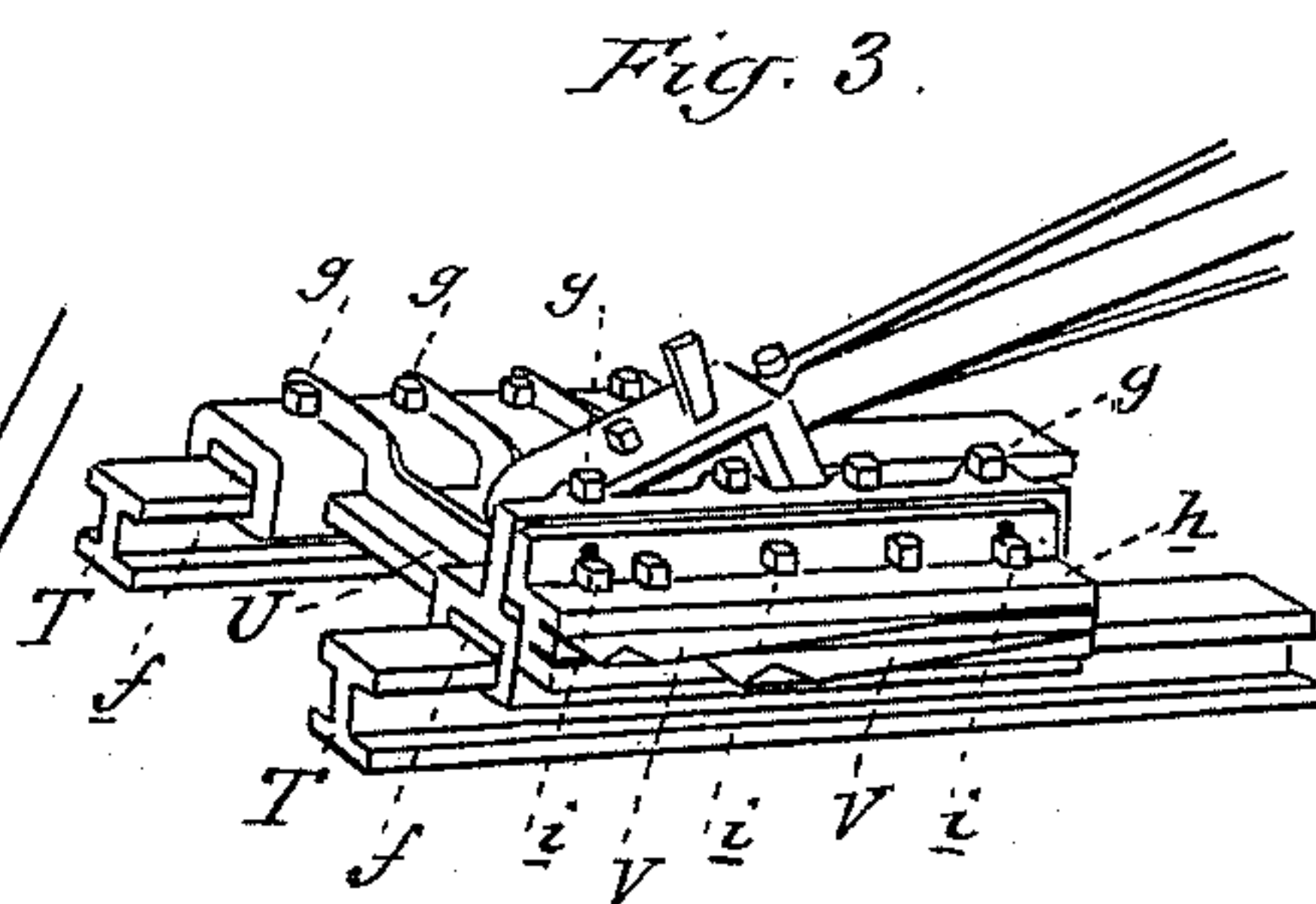
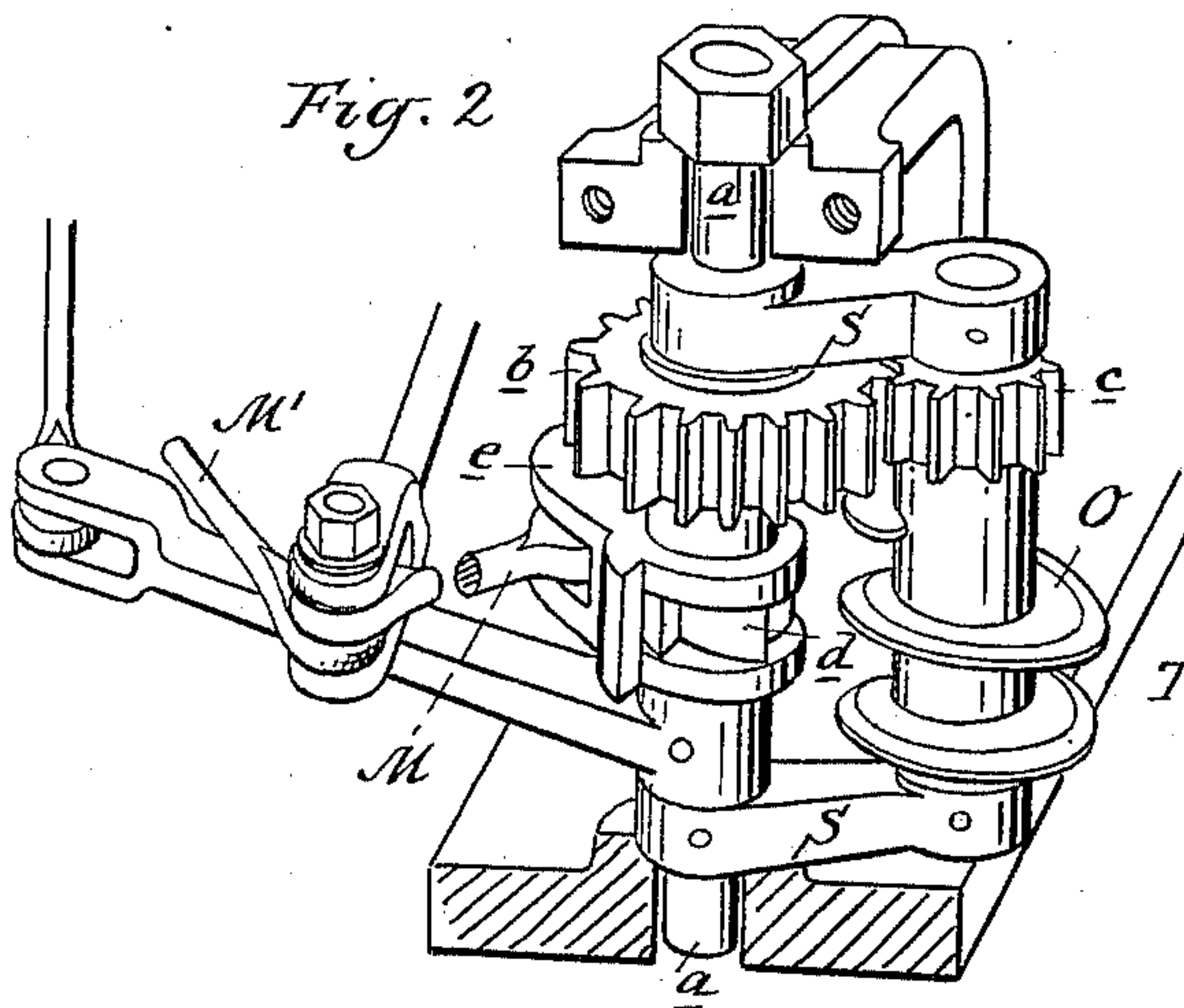
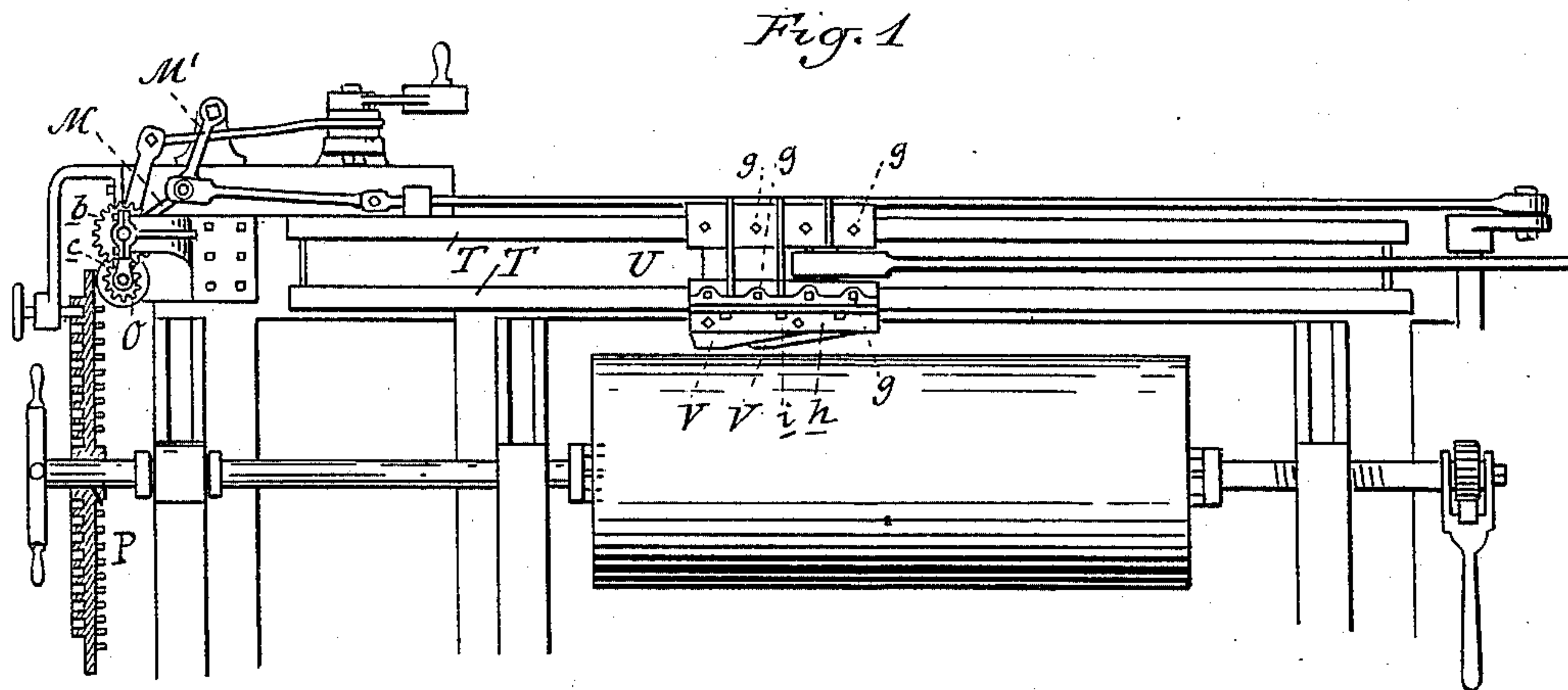


(No Model.)

F. L. WILSON.
HOOP CUTTING MACHINE.

No. 283,942.

Patented Aug. 28, 1883.



Attest:
A. Barthel
[Signature]

Inventor:
Fitzland L. Wilson
by his Atty *[Signature]*

UNITED STATES PATENT OFFICE.

FITZLAND L. WILSON, OF WEST BAY CITY, MICHIGAN, ASSIGNOR TO THE
WILSON HOOP COMPANY, OF SAME PLACE.

HOOP-CUTTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 283,942, dated August 28, 1883.

Application filed March 20, 1883. (No model.)

To all whom it may concern:

Be it known that I, FITZLAND L. WILSON, of West Bay City, in the county of Bay and State of Michigan, have invented new and useful Improvements in Hoop-Machines; and I hereby declare that the following is a full, clear, and exact description of the invention, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to certain new and useful improvements in the construction of hoop-cutting machines, and is especially designed as an improvement upon the Letters Patent granted to me April 5, 1881, No. 239,903.

This improvement consists, first, in a new feeding device; second, in devices for securing adjustability to the cross-head and cutting-knives, all the other parts of the machine being constructed substantially the same as described in the above-mentioned Letters Patent, and to which reference is made.

Figure 1 is a plan view of my machine. Fig. 2 is a detail perspective of the feeding device. Fig. 3 is a detail perspective of the cross-head and its guide.

In the accompanying drawings, which form a part of this specification, S represents a swinging frame carrying the feed-screw, O, which, by its engagement with the feed-disk P, effects the feeding of the log to the cutting-knives in the manner shown and described in above-mentioned Letters Patent. The intermittent rotary motion of the feed-screw O, I obtain in the following manner: S is the swinging frame, with its pivotal points at *a*. *b c* are intermeshing pinions. *d* is a ratchet forming an integral part with the pinion *b*. *e* is a vibrating arm, provided with a pawl (not shown) for rotating the ratchet. These parts are so arranged that when the vibrator-arm *e* is actuated the ratchet *d* will receive intermittent rotary motion, which is communicated by the pinion *b* to the intermeshing pinion *c*, which, being secured to the top of the feed-screw O, will communicate its motion to the latter. The vibrator-arm *e* is actuated by the toggle-levers M and M' in the same manner and by the same means as described in the above-mentioned Letters Patent. The advantage of this feed movement over my former one is that I now can much more easily gauge my feed to the desired amount by proportioning the relative size of the pinions *b*

and *c*, whereas in my former feed movement the range of feed was very limited and did not admit of an easy adjustment. Another advantage is that the movement of the vibrator-arm *e* has less tendency to swing the frame out of position.

U is the cross-head, to which the knives V are secured; but instead of a single track, as shown in my former patent, I now construct a double track consisting of two parallel guide-bars, T T, upon the same horizontal plane, but some distance apart, and the cross-head I provide with bearing-plates *f f*, which can be adjusted by set-screws *g*. The object of this arrangement is to provide means for taking up the wear of the cross-head, and as this is greater upon the inner side of the cross-head than upon the outer one, I am enabled, by having two separate tracks and bearing-plates, to prevent the cross-head from getting out of its prescribed plane of motion.

The knives V, I have so arranged that they simply duplicate the work—that is, each does the same work—getting thereby two hoops with each cut. As it is of paramount importance to have the plane of the knife or knives V exactly parallel to the plane of the track, I secure the knife or knives in the usual manner to a knife-head, *h*, which is firmly but adjustably secured to the cross-head U by the set-screws *i i*, of which the one in the middle forms a pivot upon which the knife-head can be turned for adjustment, while the other set-screws pass through slots in the knife-head, so as to allow this to be done. By means of the construction and adjustment just described, it is now easy to adjust the knife or knives to have their plane pass through the center of the log, and also be exactly parallel to the plane of motion.

What I claim as my invention is—

In a hoop-cutting machine, and in combination with the feeding-disk P, the swinging frame S, pivoted at *a a* and carrying the feed-screw O, the intermeshing pinions *b c*, the ratchet *d*, and means, substantially as described, for operating it, as and for the purposes set forth.

FITZLAND L. WILSON.

Witnesses:

H. S. SPRAGUE,
E. W. ANDREWS.