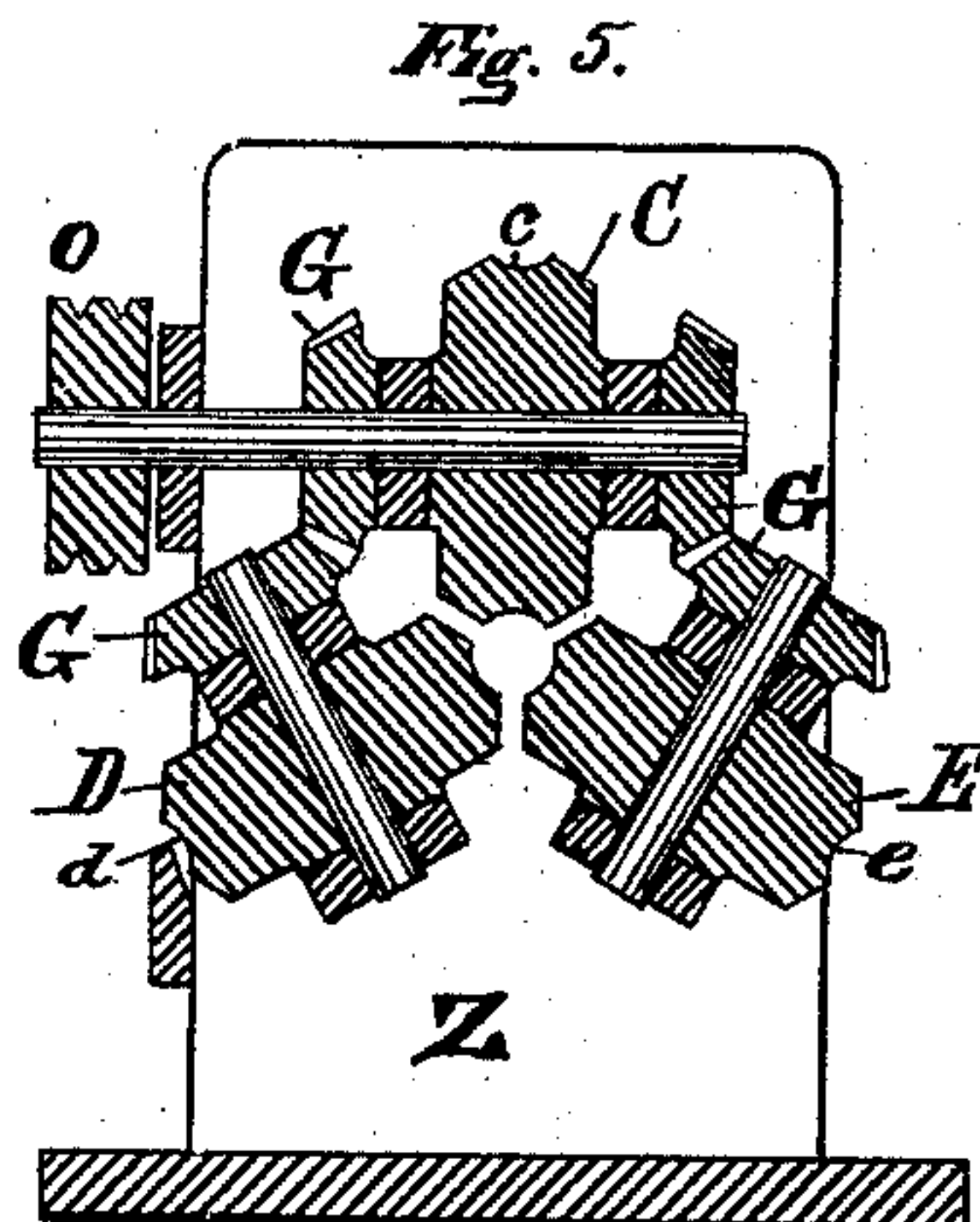
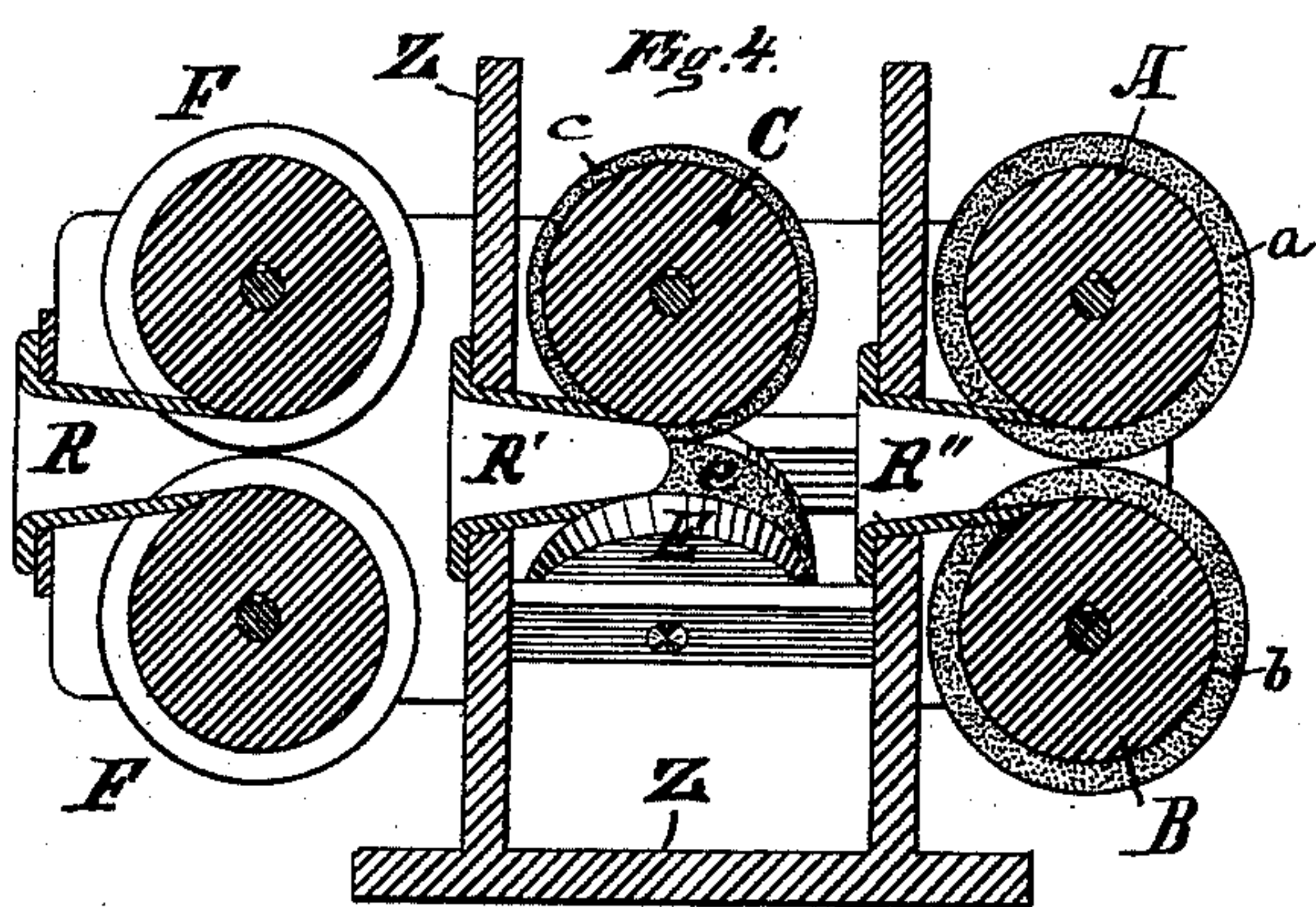
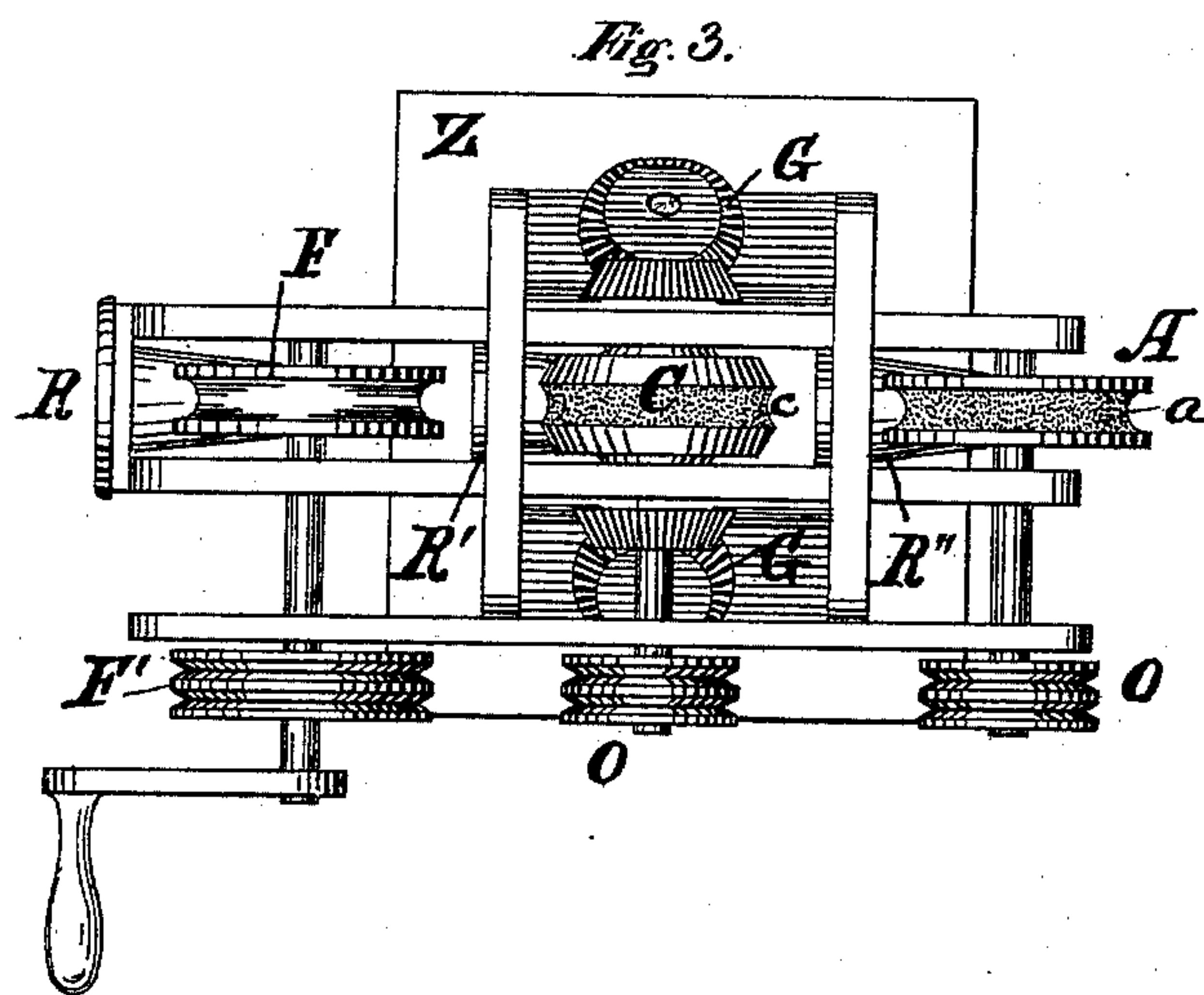
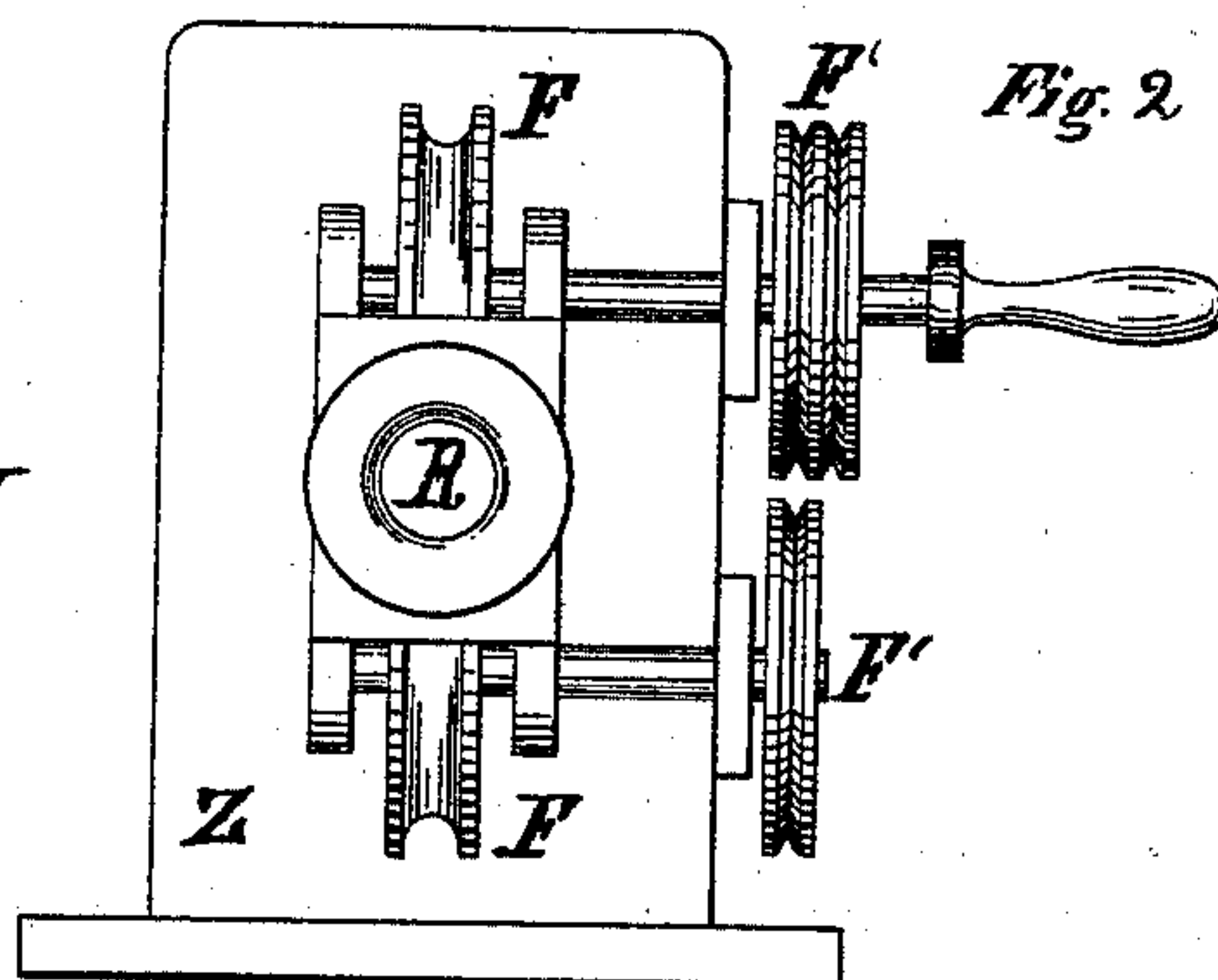
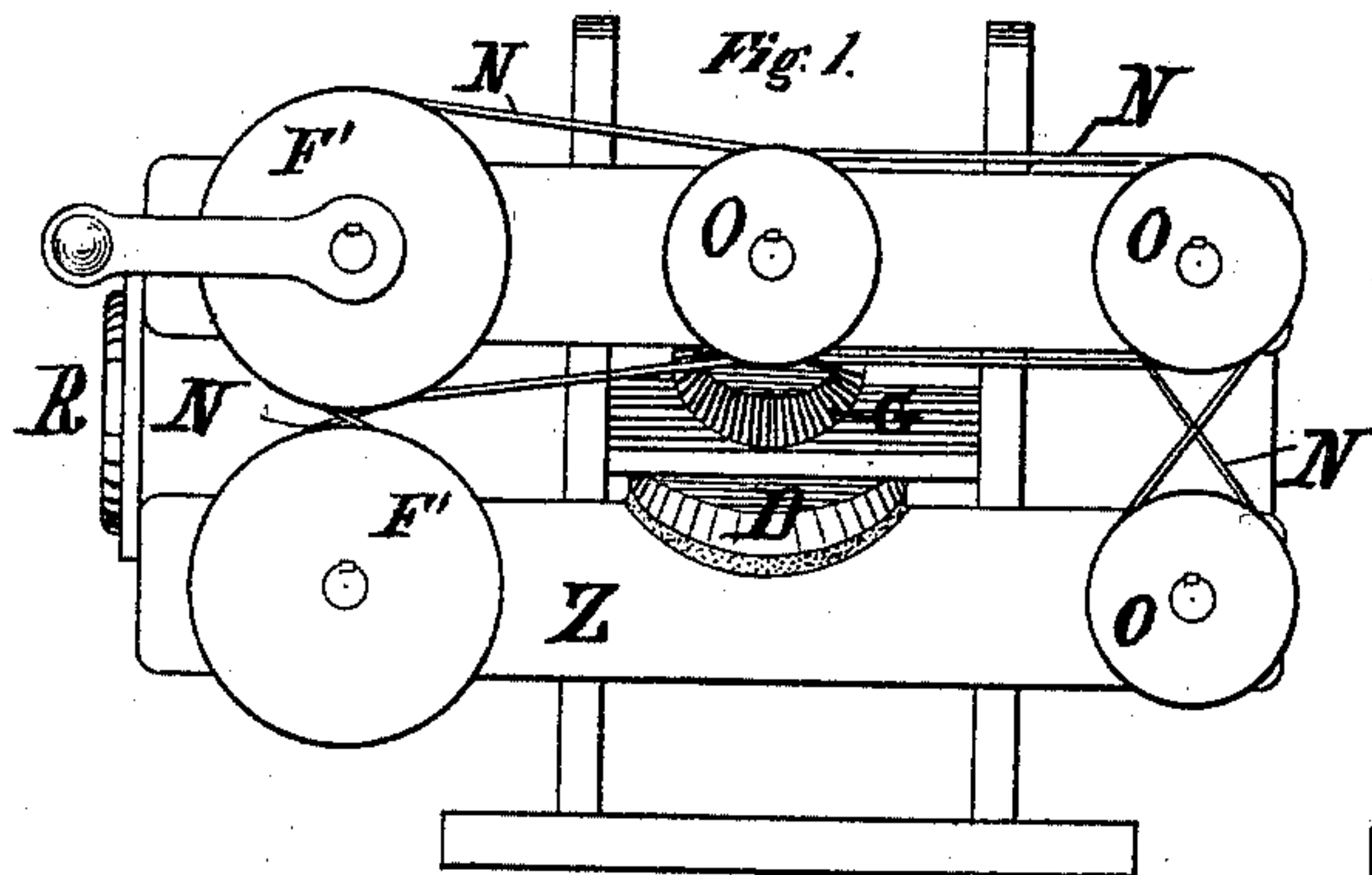


S. P. M. TASKER.
Machine for Polishing Wire, &c.

No. 223,657.

Patented Jan. 20, 1880.



Witnesses:

John Dolley Jr
Andrew Ellison

Inventor:

Stephen P. M. Tasker,
By his Attorneys
W. C. Strawbridge
J. B. Small Taylor.

UNITED STATES PATENT OFFICE.

STEPHEN P. M. TASKER, OF PHILADELPHIA, PENNSYLVANIA.

MACHINE FOR POLISHING WIRE, &c.

SPECIFICATION forming part of Letters Patent No. 223,657, dated January 20, 1880.

Application filed October 22, 1879.

To all whom it may concern:

Be it known that I, STEPHEN P. M. TASKER, of the city and county of Philadelphia, in the State of Pennsylvania, have invented a new and useful Improvement in Polishing-Machines for Polishing Wire, Tubing, and the like, of which the following is a full, clear, and true description, reference being had to the accompanying drawings, forming part hereof, of which—

Figure 1 is a side elevation of a form of apparatus conveniently embodying my invention; Fig. 2, an end elevation of the same, viewed from the left hand of Fig. 1; Fig. 3, a top-plan view; Fig. 4, a longitudinal vertical sectional elevation, and Fig. 5 a transverse sectional elevation through the three-set of polishing-rolls.

Similar letters of reference indicate corresponding parts wherever used.

The object of my invention is the polishing or smoothing of the surface of bars of metal, tubing, wire rods, and the like.

It consists in the combination, with a reducing or other wire-producing machine, of two, of three, or of more than three grooved rolls, the grooved surfaces of which are file-cut, or are composed of or surfaced with grinding or polishing material, in such arrangement and relation that the grooves of the respective rolls coincide to form a polishing orifice or pass, the polishing action being due to rotation of the rolls in the same direction as the progressive movement of the product acted upon as it emerges from the reducing-machine, but at a rate superior to said movement and superior to that commonly necessary to advance a given product through grooved rolls, my product being fed by the reducing-rolls or by other mechanism than the polishing-rolls.

In the drawings, A B represent two polishing-rolls, disposed one above the other in the same vertical plane, in such manner that their respective grooves coincide to form a polishing-orifice.

C D E represent three grooved rolls, set at an angle of one hundred and twenty degrees to each other, in such manner as likewise to form, by the coincidence of their respective grooves, a common central orifice. These two arrangements may be conveniently used in

series; but either may be employed alone in connection with the reducing or wire-producing machine.

a and b, c, d, and e represent the polishing-grooves in the various polishing-rolls, formed on their exterior periphery or tread. Z represents any suitable housing in which the apparatus is mounted. F F' represent a form of reducing-machine in common use.

Any desired mechanism may be employed to effect the requisite rotation of the polishing and reducing rolls. I have shown a system of toothed wheels G and bands and pulleys N O.

R R' R'' are guides of any fit construction, respectively connected with the reducing apparatus and the three-set and pair of polishing-rolls.

I have, as stated, represented in the drawings two sets of polishing-rolls, composed, respectively, of three and of two rolls each, and arranged in series. Either set, however, may be used separately, or any given number of rolls disposed at the proper angles may be employed instead of three or two.

The gist of the invention lies in the combination, with a wire-producing or reducing machine, of two or more grooved rolls composed wholly, or as to their grooves, of polishing or grinding substance, in such manner that the respective grooves coincide to form the polishing-orifice, and in such further manner that the polishing action of said rolls is due to their rotation in the same direction as the feed, and at a speed superior to the rate of progression of the material acted upon, if said material were advanced by means of said rolls alone.

My invention is designed for use in connection with any wire or tube feeding, drawing, reducing, or reeling apparatus.

The polishing-surface of the grooves may be secured by forming the rolls wholly out of emery, stone, or other composite substance possessed of the necessary polishing properties, or by merely surfacing the grooves with polishing material.

I am aware that it is old to arrange two or more grooved rolls in such manner that the grooves coincide to form an orifice of any given form, and to such arrangement, *per se*, I lay no claim, but only claim such arrangement of grooved rolls when the grooved faces are

file-cut or composed of or surfaced with grinding or polishing material.

I am also aware that two grooved grind-stone-rollers disposed in the same vertical
5 plane have been employed for polishing purposes when rotated against the direction of the feed, as in English Patent No. 2,528 of 1853, to Chesterman, and to such arrangement I lay no claim.

10 Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

The combination, with any wire-making machine, of two, of three, or of more than three
15 grooved rolls, the grooved surfaces of which

are file-cut, or composed of or surfaced with grinding or polishing material, in such manner that the grooves of the respective rolls coincide to form a polishing-orifice, the rolls being rotated in the same direction as and at 20 a higher speed than the progressive movement of the material acted upon.

In testimony that I claim the foregoing as my invention I have hereunto signed my name this 19th day of July, 1879.

STEPHEN P. M. TASKER.

In presence of—

— J. BONSALE TAYLOR,
W. C. STRAWBRIDGE.