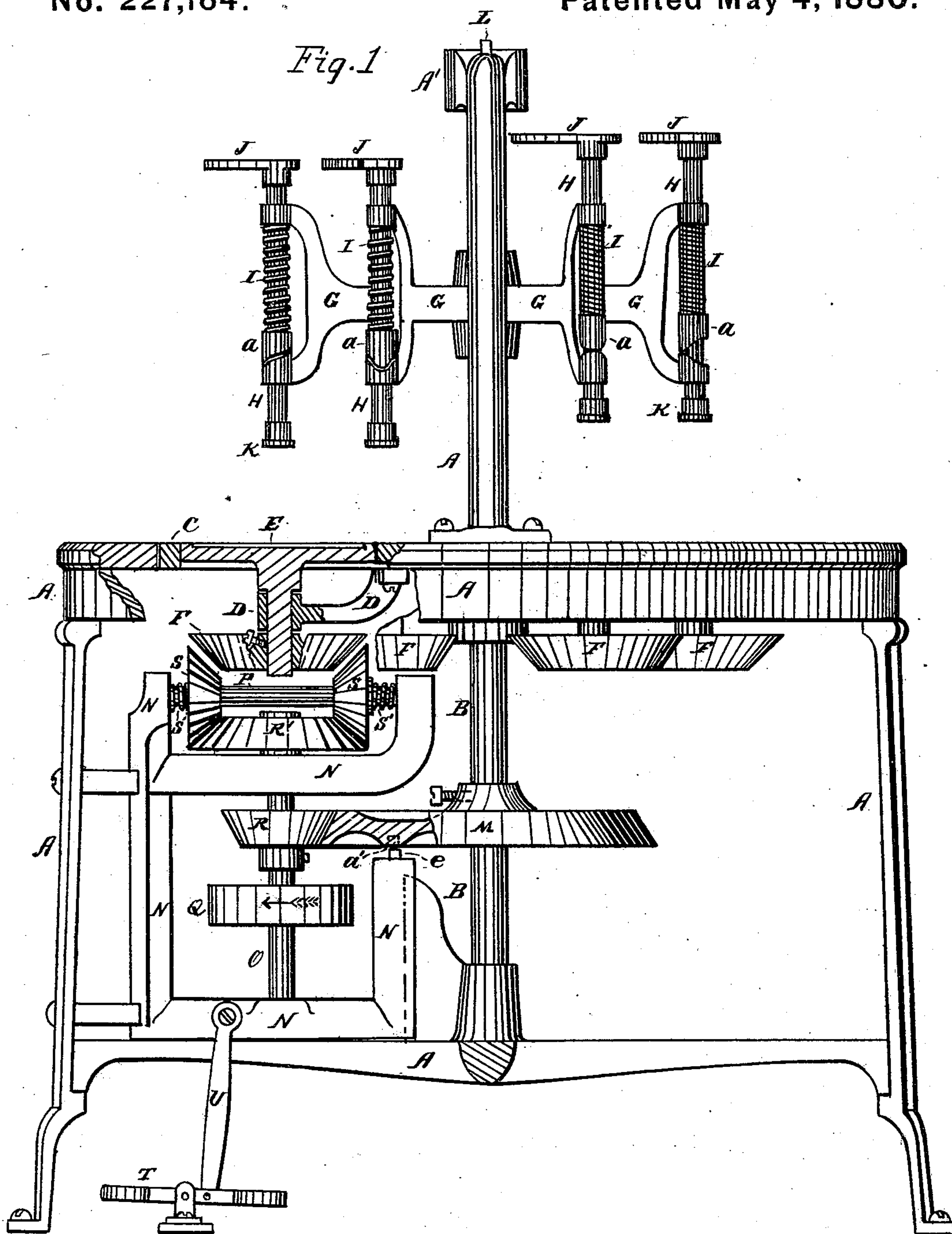


G. R. GLEASON.
Soldering Machine.

No. 227,164.

Patented May 4, 1880.



WITNESSES

C. H. Dammage
Q. C. Clark

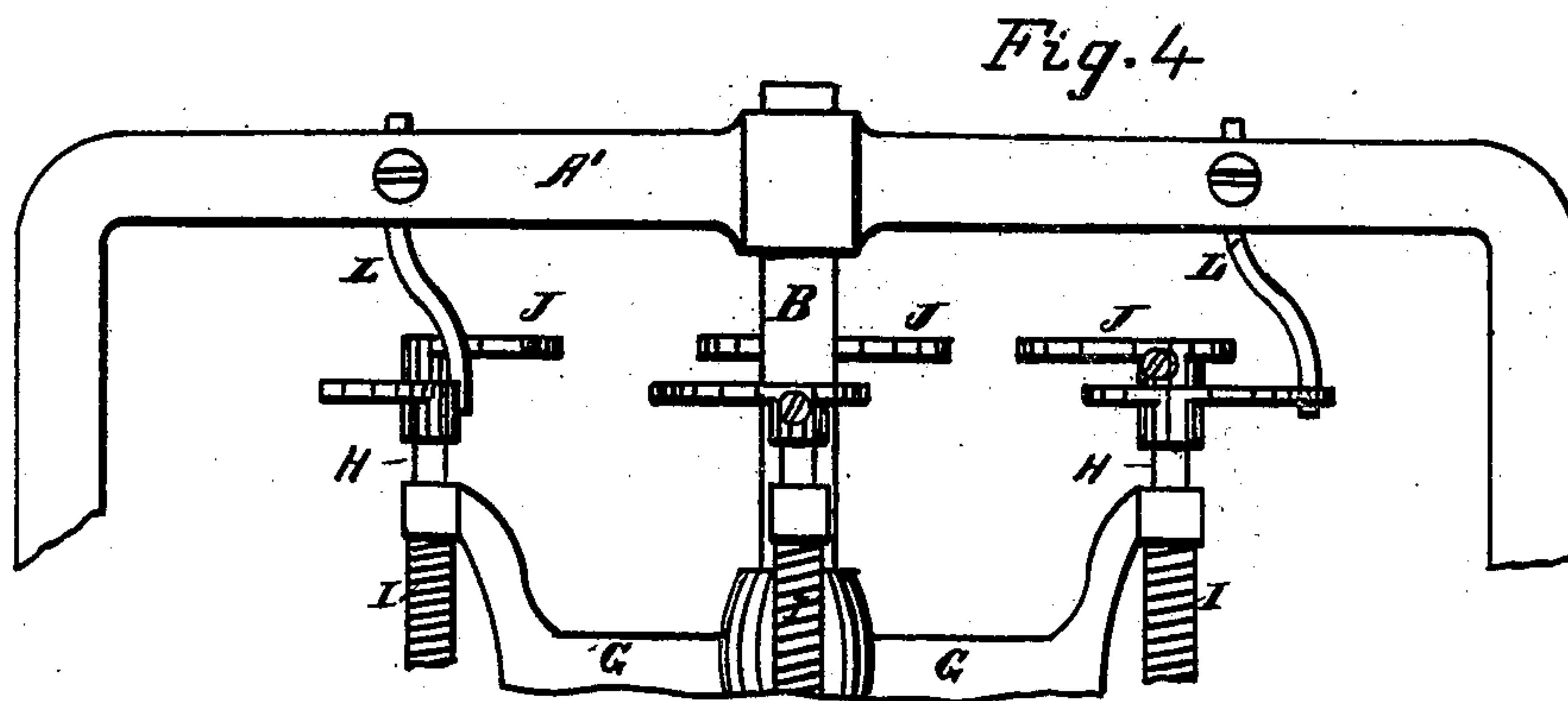
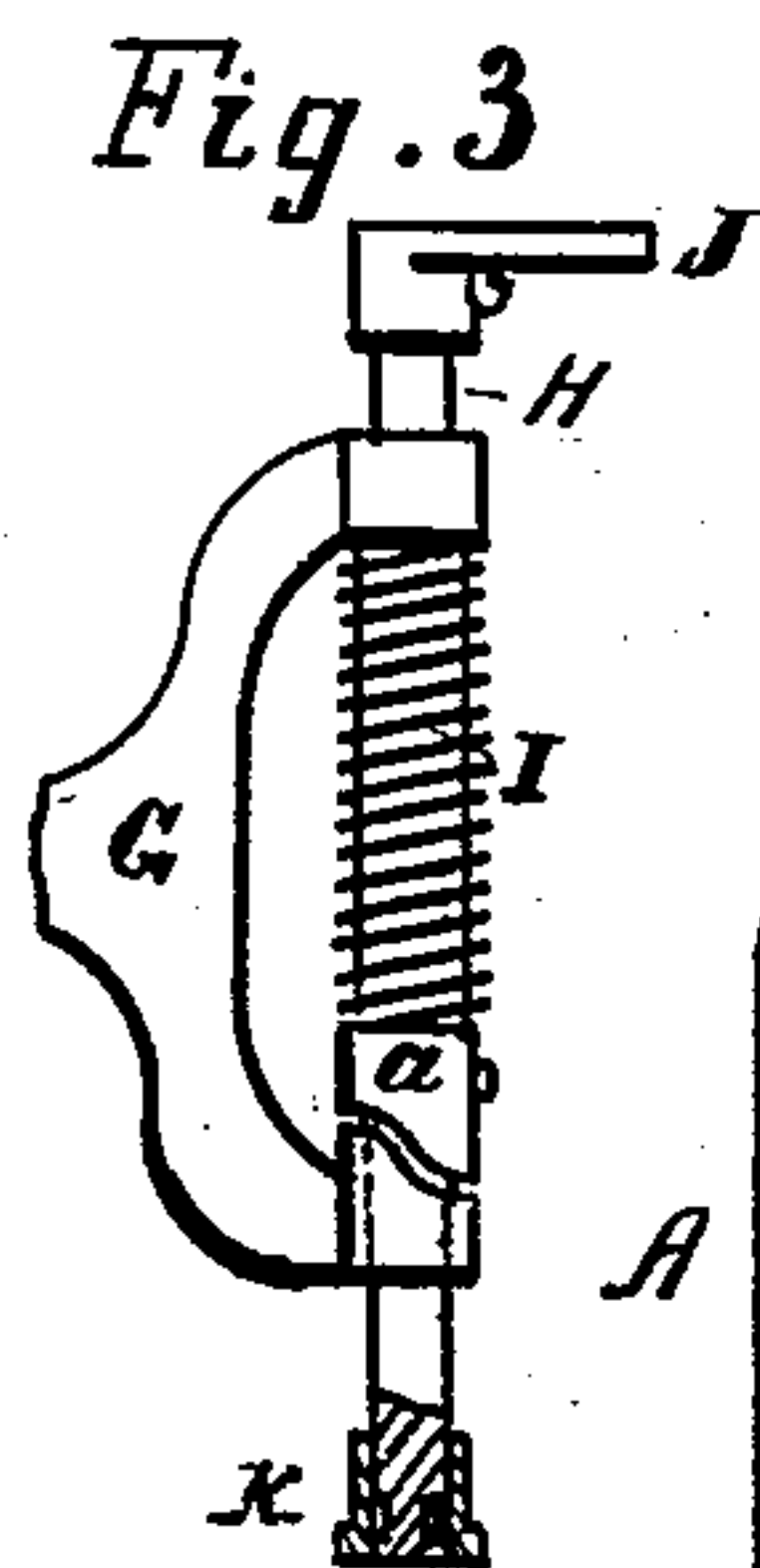
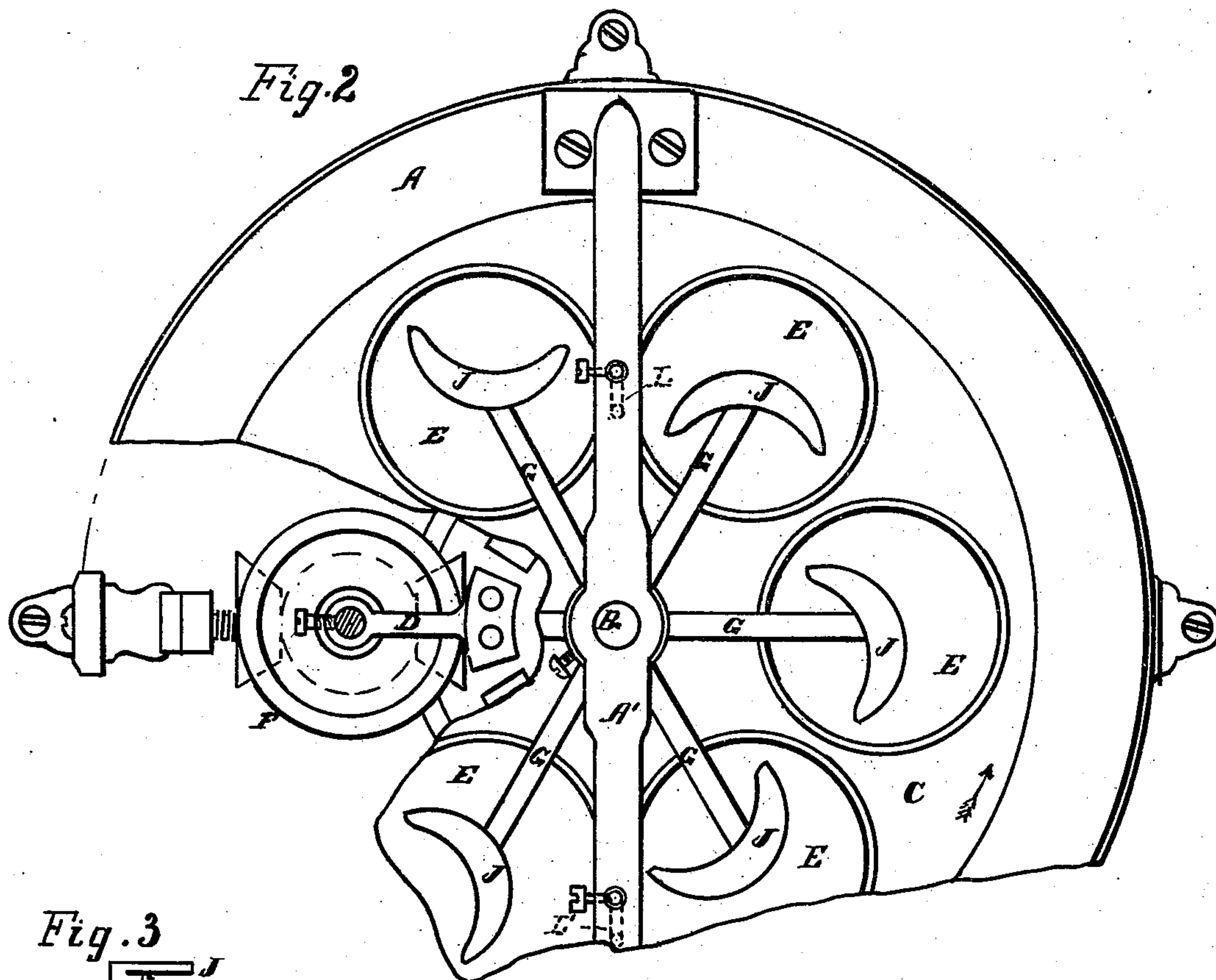
INVENTOR

George R. Gleason
By *F. E. Warner*, his
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WITNESSES

C. H. Dallmeyer _____

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INVENTOR

George R. Gleason _____

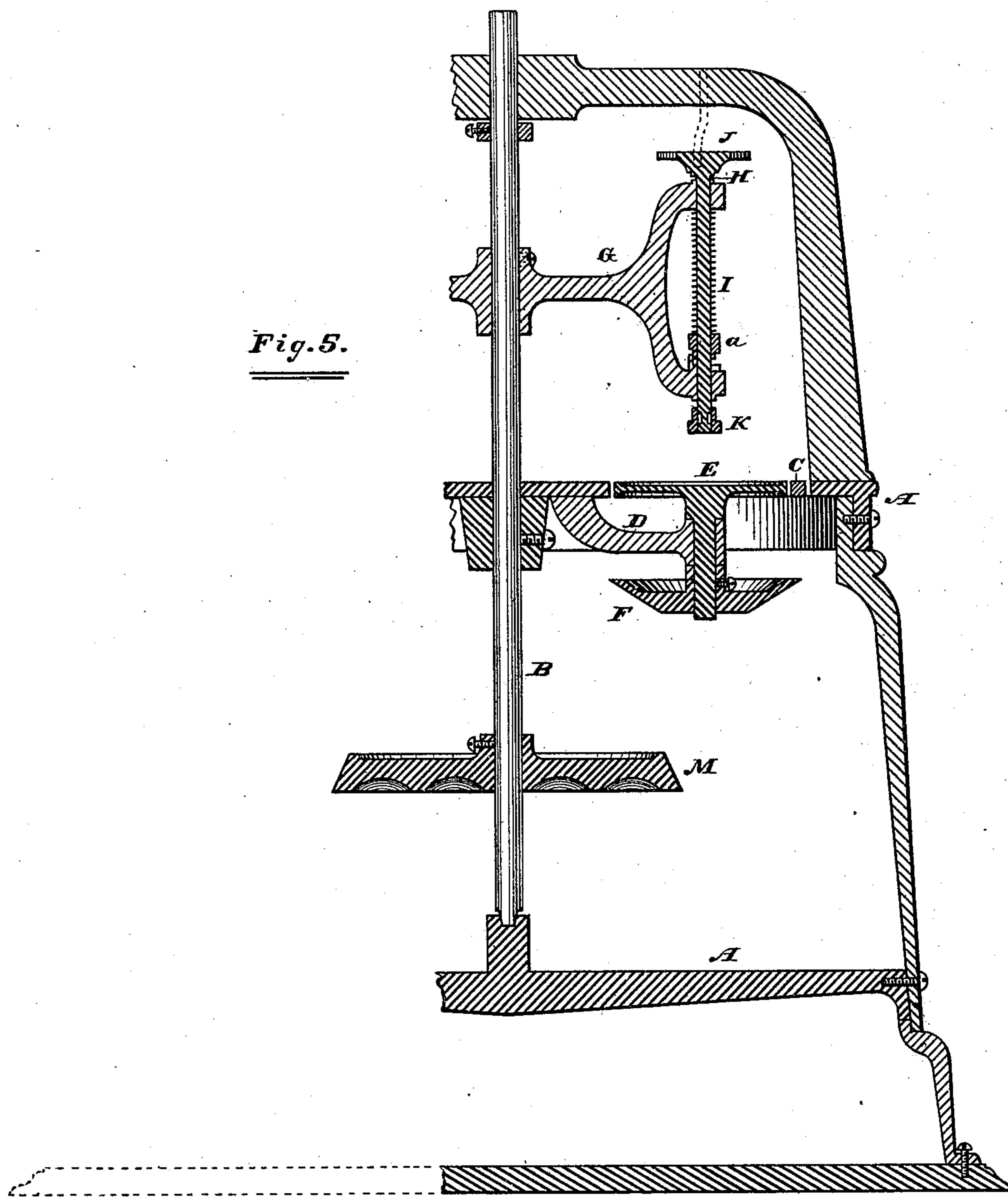
By *F. F. Harris* *his*
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Fig. 5.



Attest:

W. L. Baker -
Chas H Tallmadge

Inventor:

George R. Gleason
By F. F. Warner, his
Attorney.

UNITED STATES PATENT OFFICE.

GEORGE R. GLEASON, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF OF HIS RIGHT TO GEORGE C. THOMPSON, OF SAME PLACE.

SOLDERING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 227,164, dated May 4, 1880.

Application filed October 3, 1879.

To all whom it may concern:

Be it known that I, GEORGE R. GLEASON, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Soldering-Machines, of which the following, in connection with the accompanying drawings, is a specification.

Figure 1, Sheet 1, is a side elevation of a machine embodying my invention; Fig. 2, Sheet 2, a top or plan view thereof; Fig. 3, Sheet 2, a detail (shown partly in section) of the presser device; Fig. 4, Sheet 2, a side elevation of the upper part of the machine; and Fig. 5, Sheet 3, is a vertical central section through the standards and cross-piece.

Like letters of reference indicate like parts.

In the drawings, A represents the frame of the machine, and B is a vertical shaft having bearings therein. C is a table rigidly applied to the central part of the said shaft. D D are radial arms or supports rigidly applied at their inner ends to the under face of the table C. E E are disks having slightly countersunk or depressed upper faces flush, or nearly flush, with the upper face of the table C, and turning freely therein. The disks E E have bearings in the outer ends of the arms D D, and F F are friction-pinions rigidly applied to the spindles of the disks E E, the spindles projecting sufficiently through the arms D D to receive the said pinions.

G G are radial arms, hangers, or brackets rigidly applied to the shaft B, and arranged above the table C. H H are rods or pressers passing freely through the outer ends of the arms G G, and each rod has thereon a rigid collar, *a*, seated on the lower end of the arm through which the rod passes. The lower end of each collar and the upper face of its seat are beveled, as shown in Figs. 1 and 3, so that as each rod is rotated in one direction on its major axis it will be raised and rest in its raised position, and descend as it is rotated in the opposite direction.

I I are open spiral springs about the rods H H and arranged between the collars *a a* and the upper outer ends of the arms G G. J J are crescent-shaped pieces or cams rigidly attached to the upper ends of the rods H H, and K K are rotary pieces or anti-friction caps

or heads on the lower ends of the said rods. The caps K K should stand directly over the centers of the disks E E respectively. The cams J J and arms G G may be adjustably applied to the parts to which they are attached.

L L' are fingers or strikers depending from a transverse arm, A', of the frame A. M is a friction-wheel on the lower part of the shaft B. N is a vertically-sliding frame carrying the vertical shaft O and the horizontal shaft P. Q is a belt-wheel or driver, and R R' are friction-pinions, both rigidly applied to the shaft O, and S S are loose friction-pinions on the shaft P. The pinion R is arranged for contact with the wheel M, and the pinion R' for contact with the pinions S S. S' S' are springs to insure the contact last above referred to.

In the under face of the wheel M are the small sockets *a' a'*, corresponding in number and position to the disks E E, and *e* is a small dowel or pin on the frame N. The pin *e* is arranged to enter the sockets *a' a'* when the frame N is raised, it being understood that this frame rides in suitable ways or guides on the frame A. T is a treadle, and U is a connecting-rod connecting it to the frame N.

This machine is intended chiefly for the purpose of facilitating the operation of soldering the caps to metallic cans. The cans are for this purpose placed on the disks E E, the end to be soldered being uppermost. The workman who is to do the soldering stands in such a position that his foot may rest conveniently on the treadle, and opposite him stands an assistant, who places the cans upon the disks and removes them. It is to be understood that the wheel Q is rotated constantly in the direction indicated by the arrow thereon (shown in Fig. 1.) By depressing the inner end of the treadle the pinion R is held against the wheel M with sufficient force to rotate the latter, and by this means the table C is rotated in the direction indicated by the arrow shown in Fig. 2. As the cams J J pass the finger L they are struck thereby and rotated sufficiently to allow the springs I I to push the caps or heads K K down upon the caps to be soldered to the cans, those parts having

been previously arranged thereon by the attendant. It may be here stated that the caps or heads K K are raised from the cans by the contact of the cams J J with the finger L', so that room is left for allowing the attendant to perform his work with facility. As each pinion F passes between the pinions S S the first-named pinion is rotated, and the rotation of the table C ceases, it being understood that when the inner end of the treadle is depressed the upper end of the pin e is in contact with the lower face of the wheel M, but not in a socket, a', and that as soon as the rotation of the wheel M begins the operator shifts the pressure exerted by his foot to the outer or other end of the treadle, when, as will be perceived, the pin e will enter the first socket, a', carried to it by the rotation of the wheel M, and the frame N and all the parts carried by it will be raised, thus carrying the pinion R from the wheel M and stopping the rotation of the table C, but carrying the pinions S S to the pinion F, for, as will be remembered, the sockets a' a' are such in number and arrangement as to produce this result. While the table C is motionless, and the cans are thus being rotated, the operator applies his bar of solder and the soldering-tool in such manner as to solder the cap to the can; and this he can do with facility because of the convenient arrangement and rotation of the cans at that time. As each can is soldered the inner end of the treadle is again depressed, and then the outer end, when the movement and operation already described will be repeated, and the soldered cans may be removed and others arranged in their stead.

While the caps or circular disks usually

employed for sealing cans of various forms and sizes may be soldered to the heads or ends of the cans with great facility by means of this machine, it will be perceived that the machine is also adapted to solder the ends to cylindrical cans.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, in a soldering-machine, of the rotary table C, the independently-rotating disks or seats E E, the rotary, yielding, and cam-seated pressers H H, arranged centrally over the said disks or seats and carrying on their upper ends the cams J J, and the fixed fingers or strikers L L', substantially as and for the purposes specified.

2. The combination, in a rotary soldering-machine, of the revolving arms G G, the rods H H, having near their lower ends the cam-formed and rigid collars a a, seated on cam-seats on the said arms, the cams J J, applied rigidly to the upper ends of the said rods, the free or loose caps K K, the springs I I, and the fixed fingers L L', substantially as and for the purposes specified.

3. The combination, in a rotary soldering-machine, of the rotary table C, the rotary disks E E, carried by the table C, the wheel M, having therein the sockets a' a', corresponding in number and position to the said disks, and the movable frame N, carrying the pin e and the driving-gearing, substantially as and for the purposes specified.

GEORGE R. GLEASON.

In presence of—

F. F. WARNER,

C. G. HUTCHINSON.