

No. 765,427.

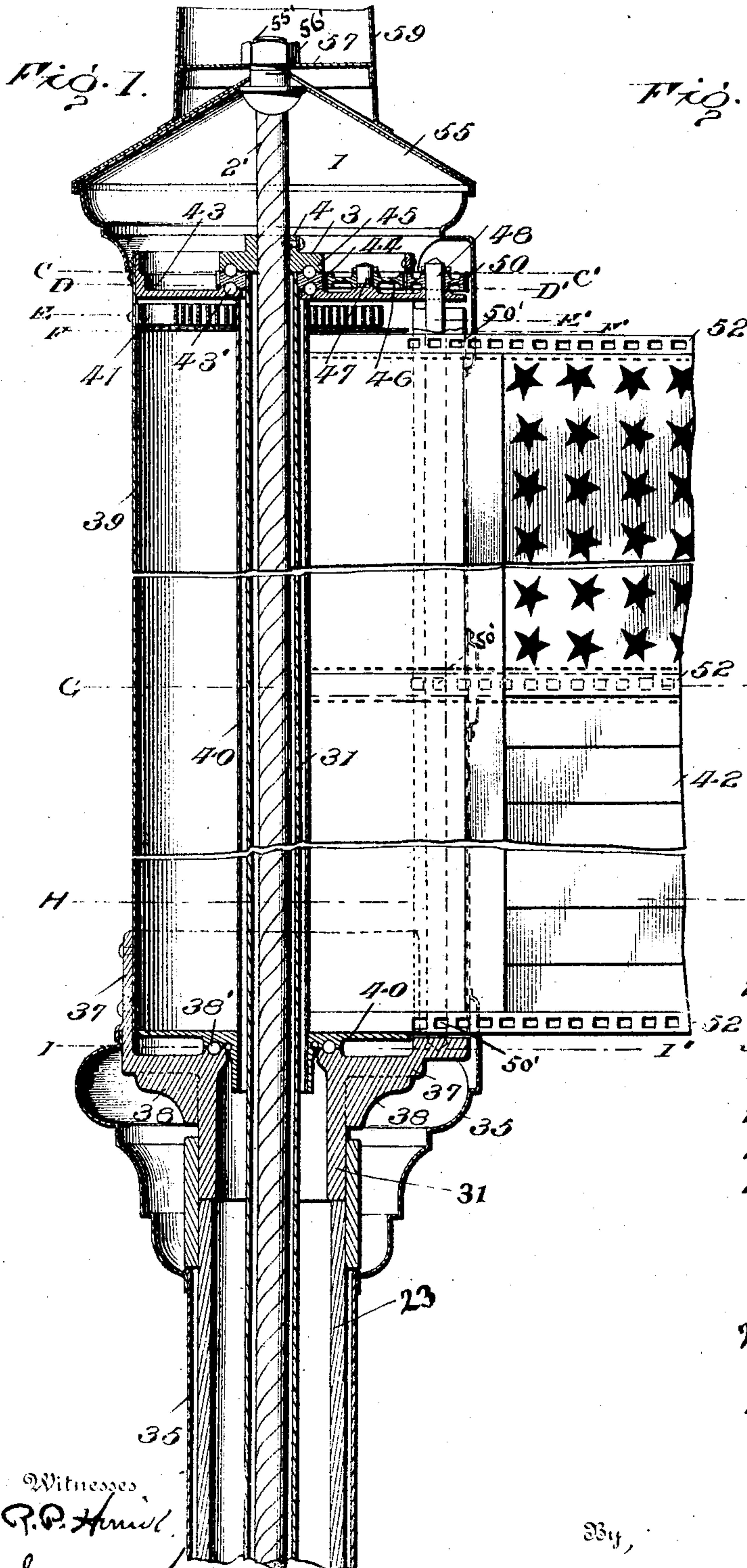
PATENTED JULY 19, 1904.

G. I. HERRICK.
FLAG CASE AND POLE.

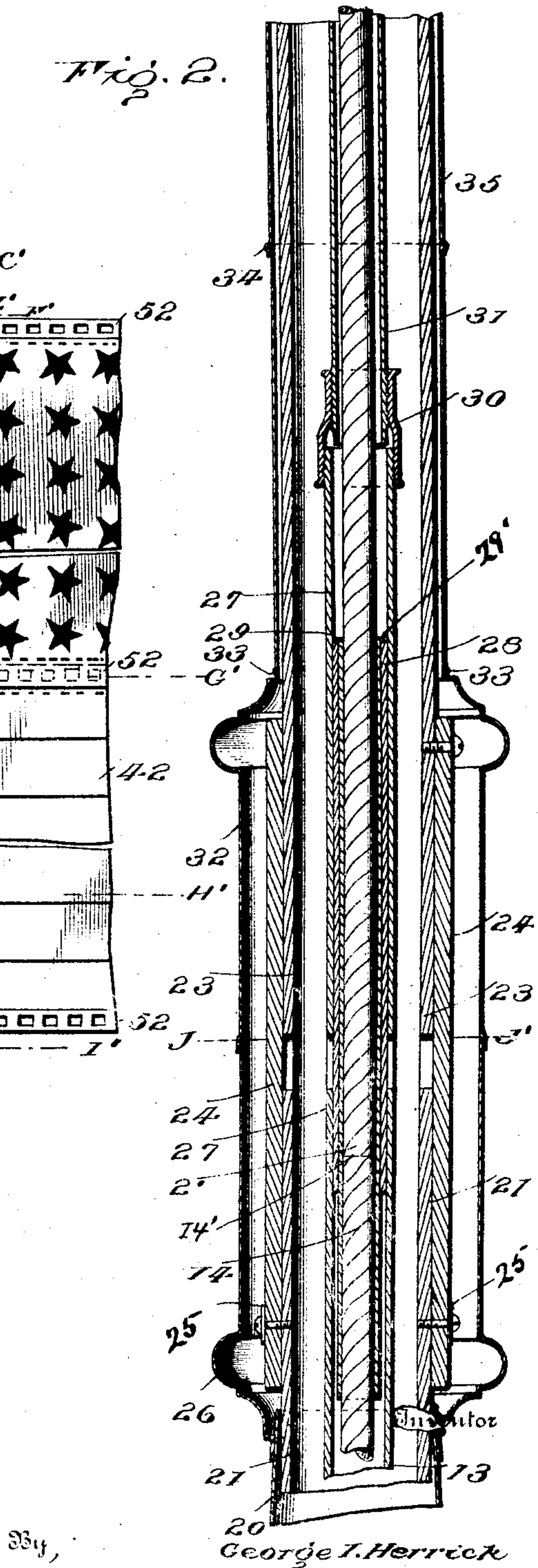
APPLICATION FILED SEPT. 19, 1903.

NO MODEL.

5 SHEETS—SHEET 1.



Witnesses,
G. P. Herrick,
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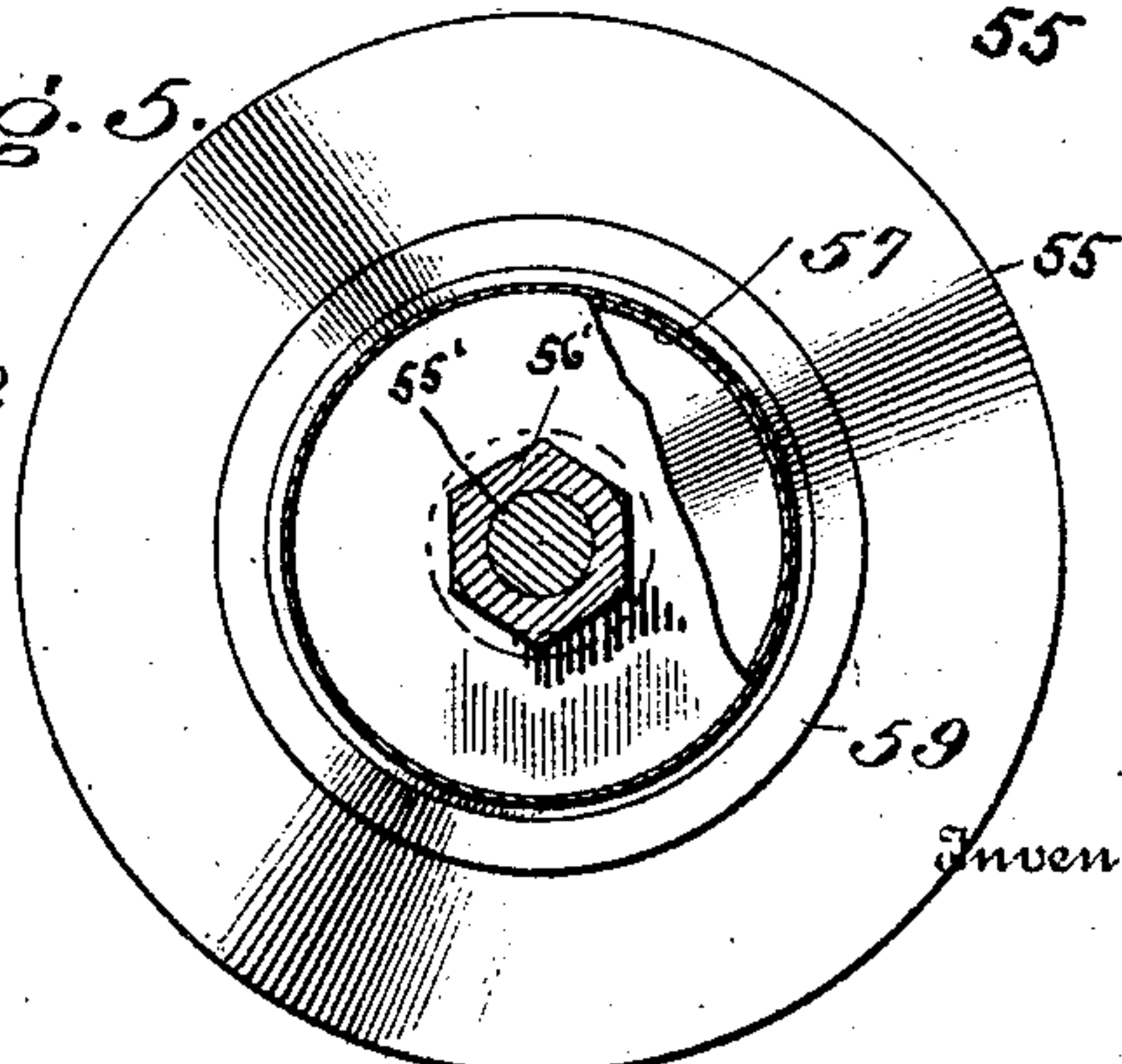
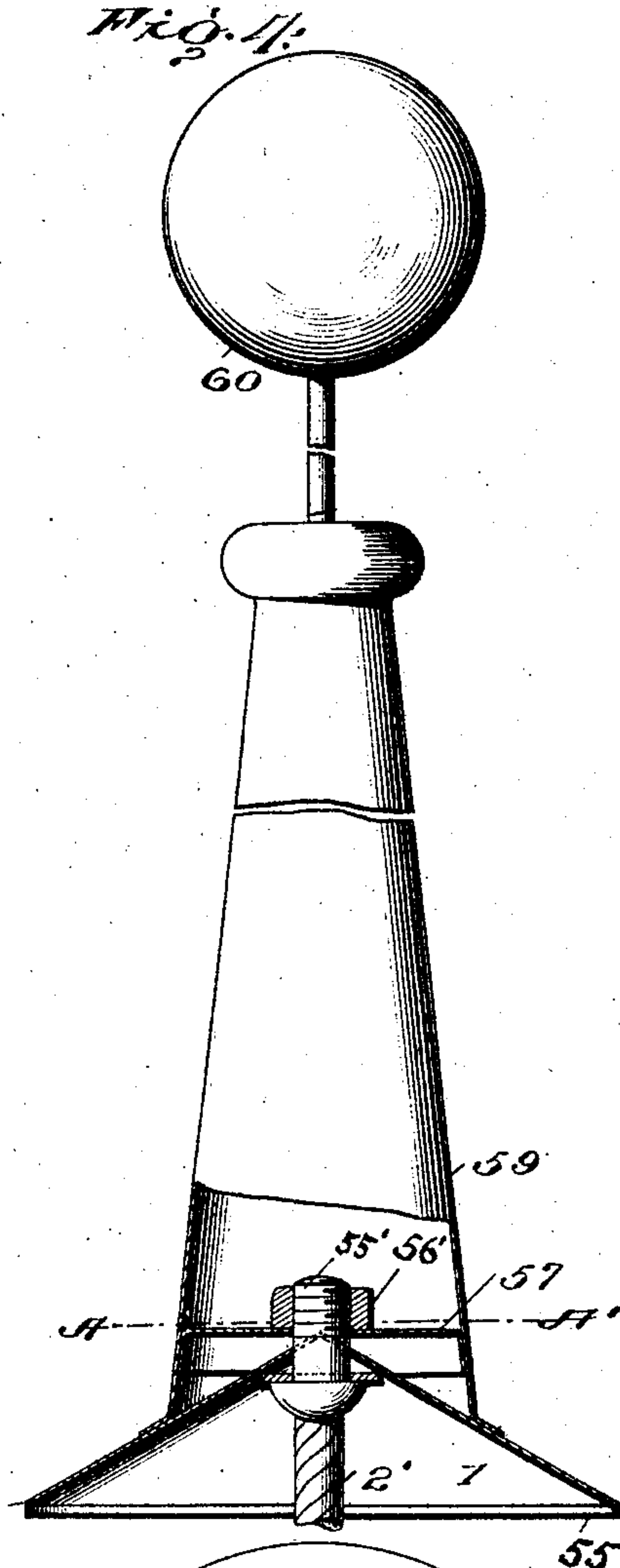
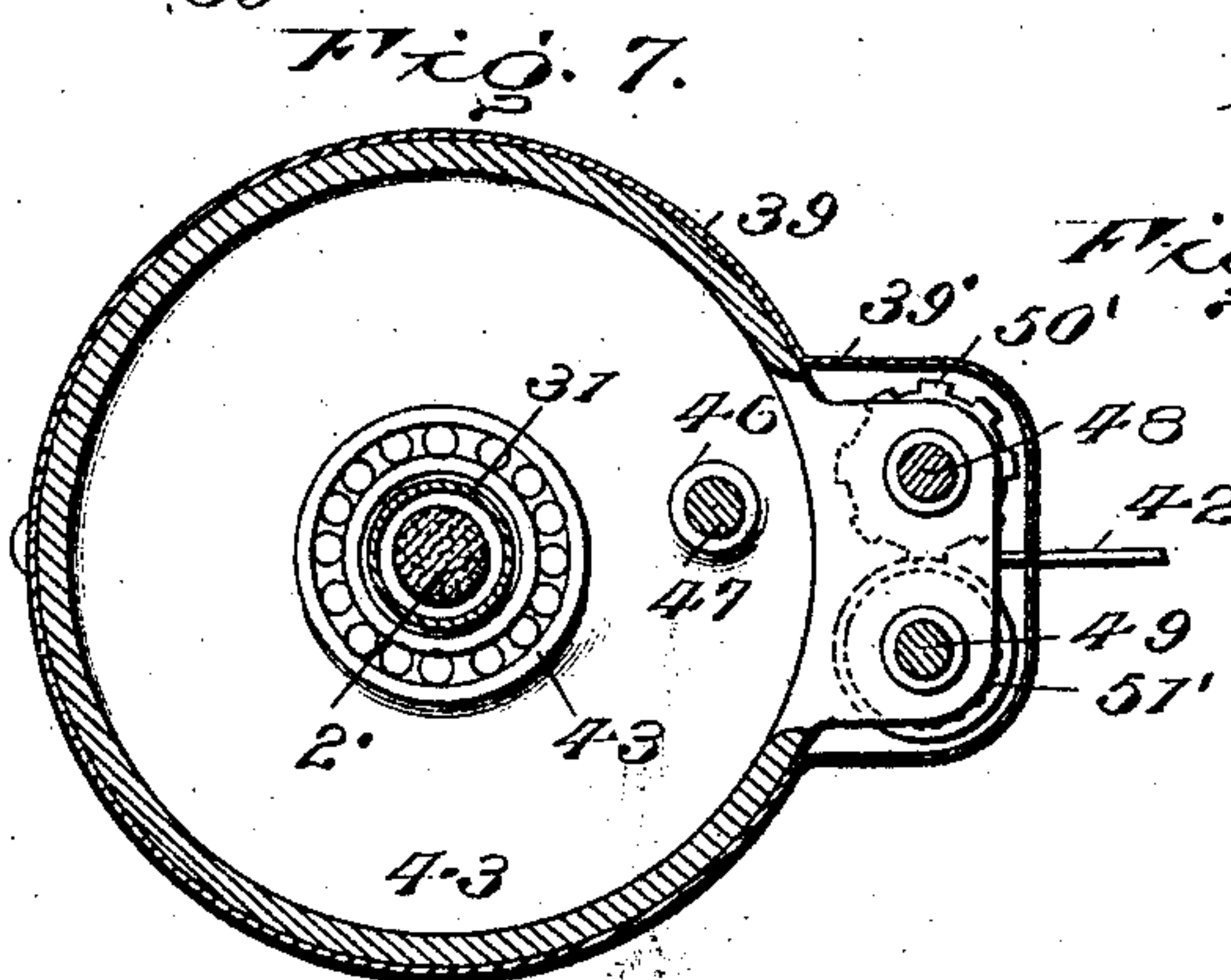
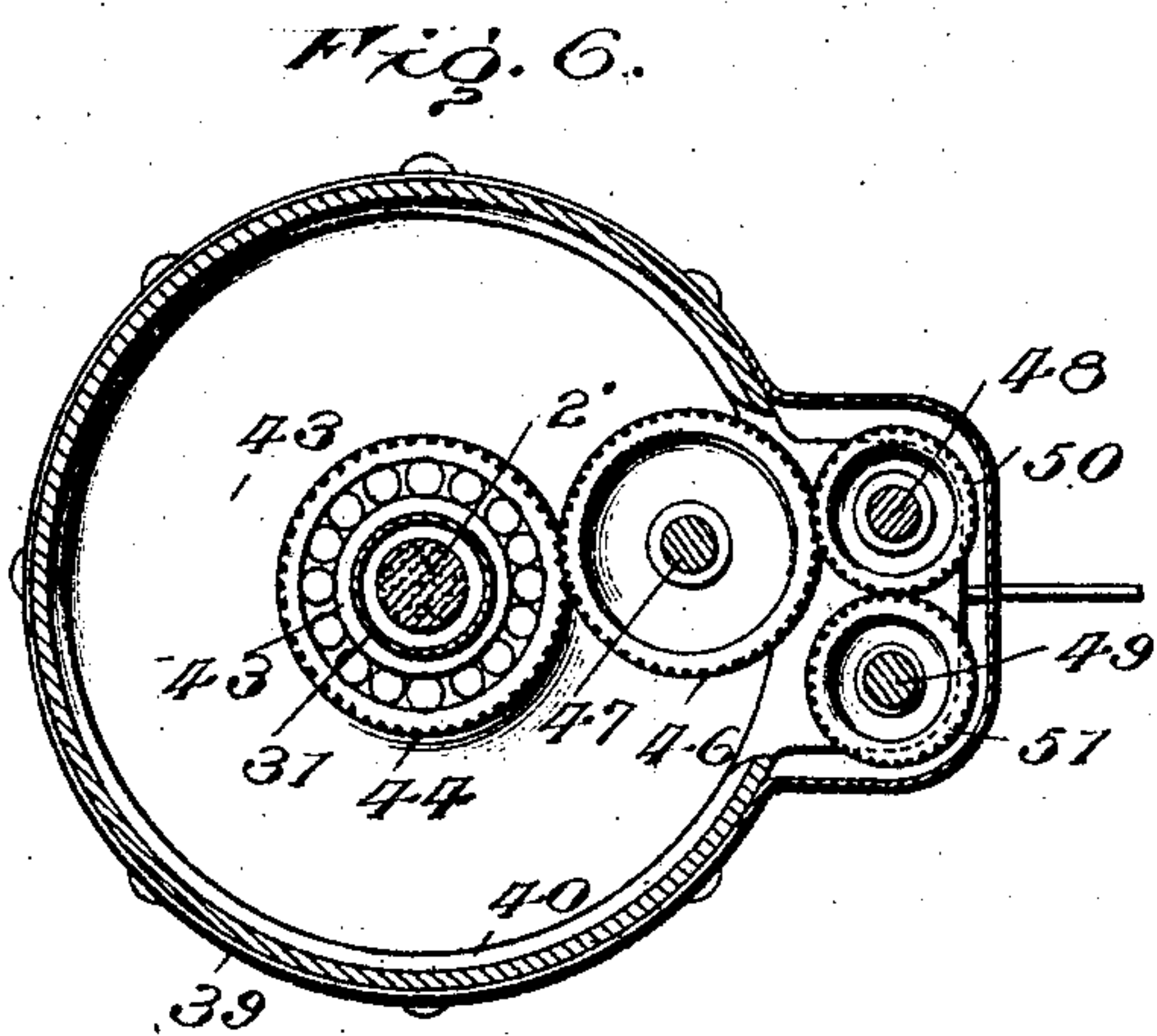
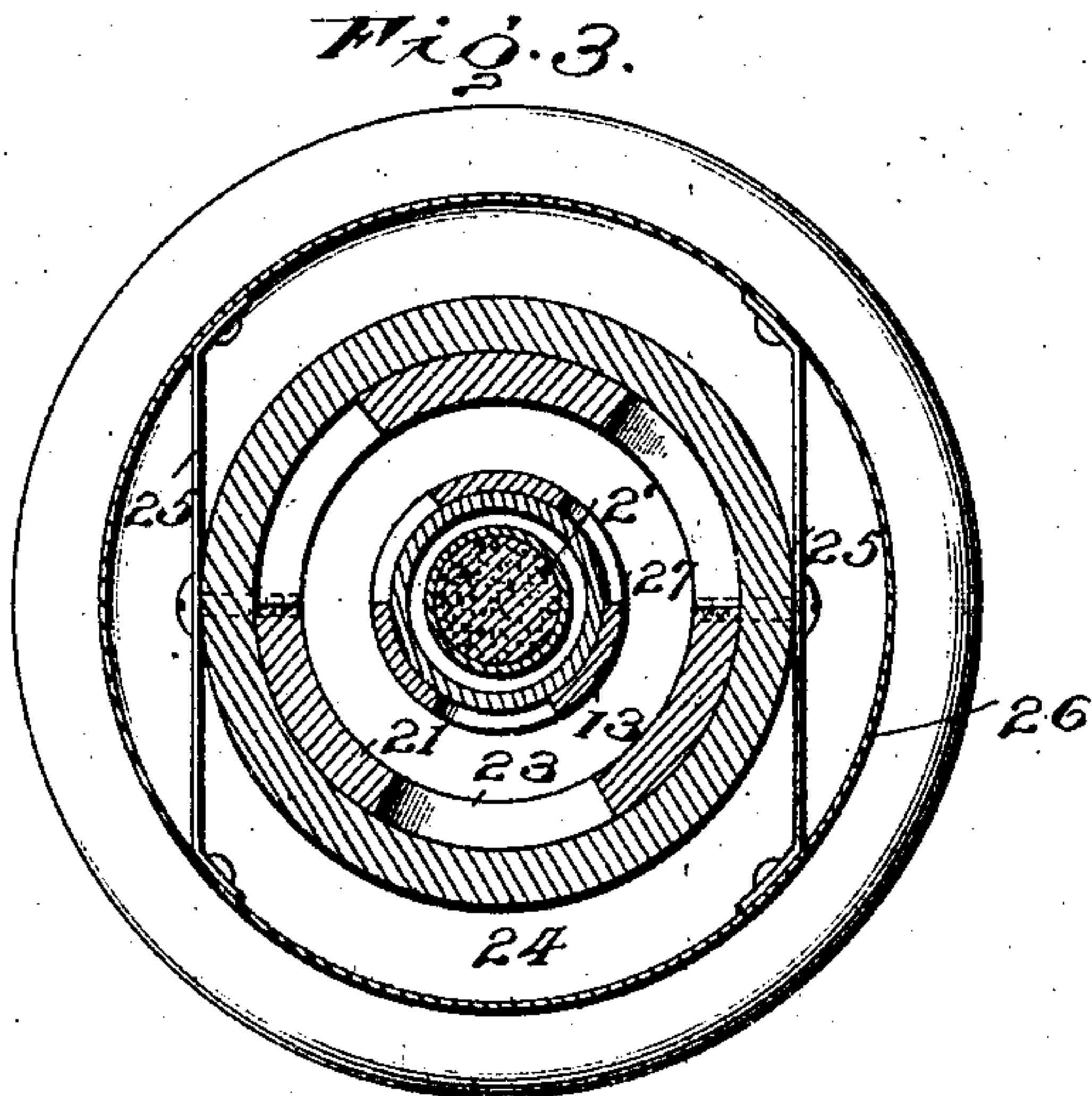
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5 SHEETS—SHEET 2.



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5 SHEETS—SHEET 3.

Fig. 8.

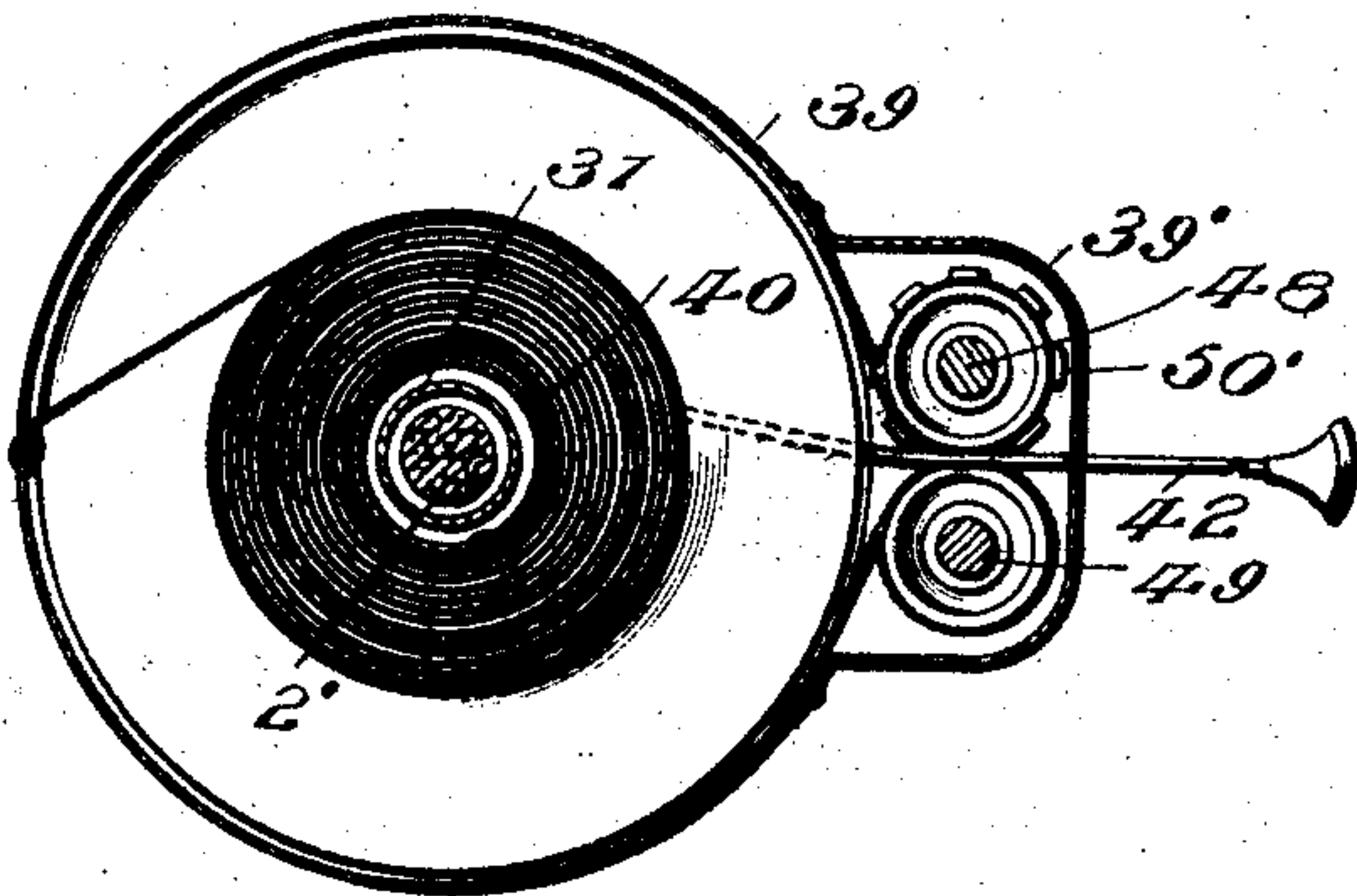


Fig. 9.

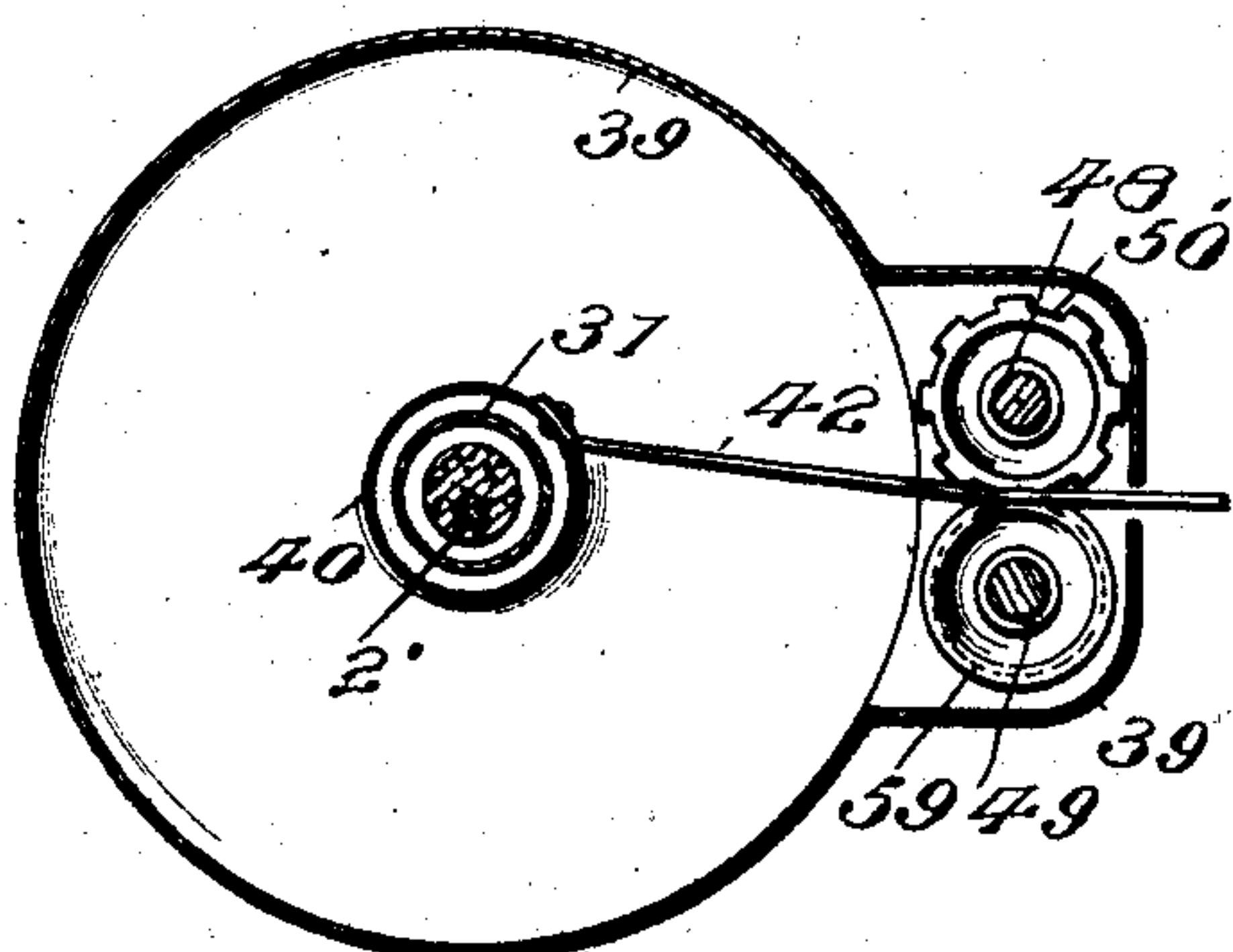


Fig. 10.

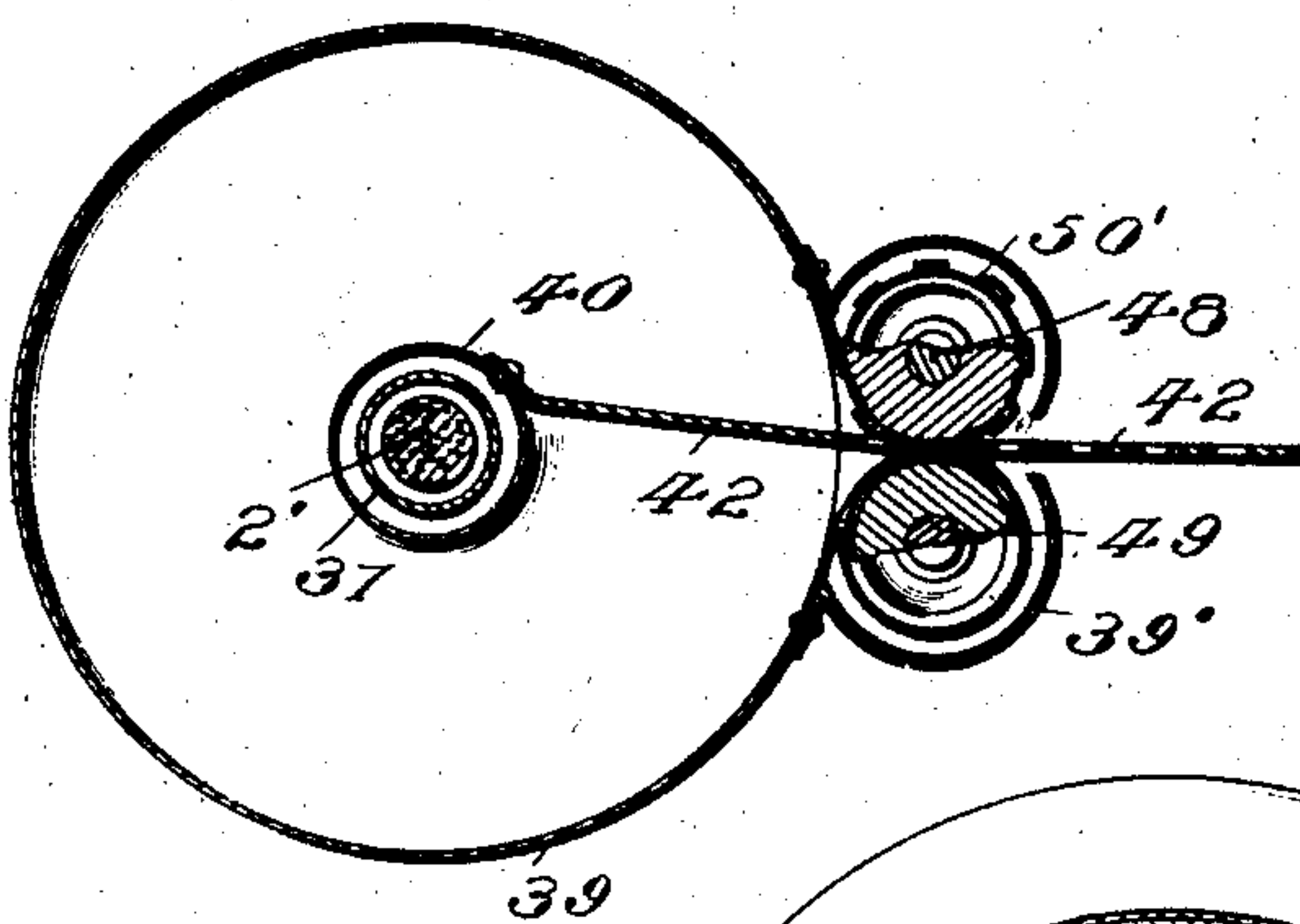


Fig. 11.

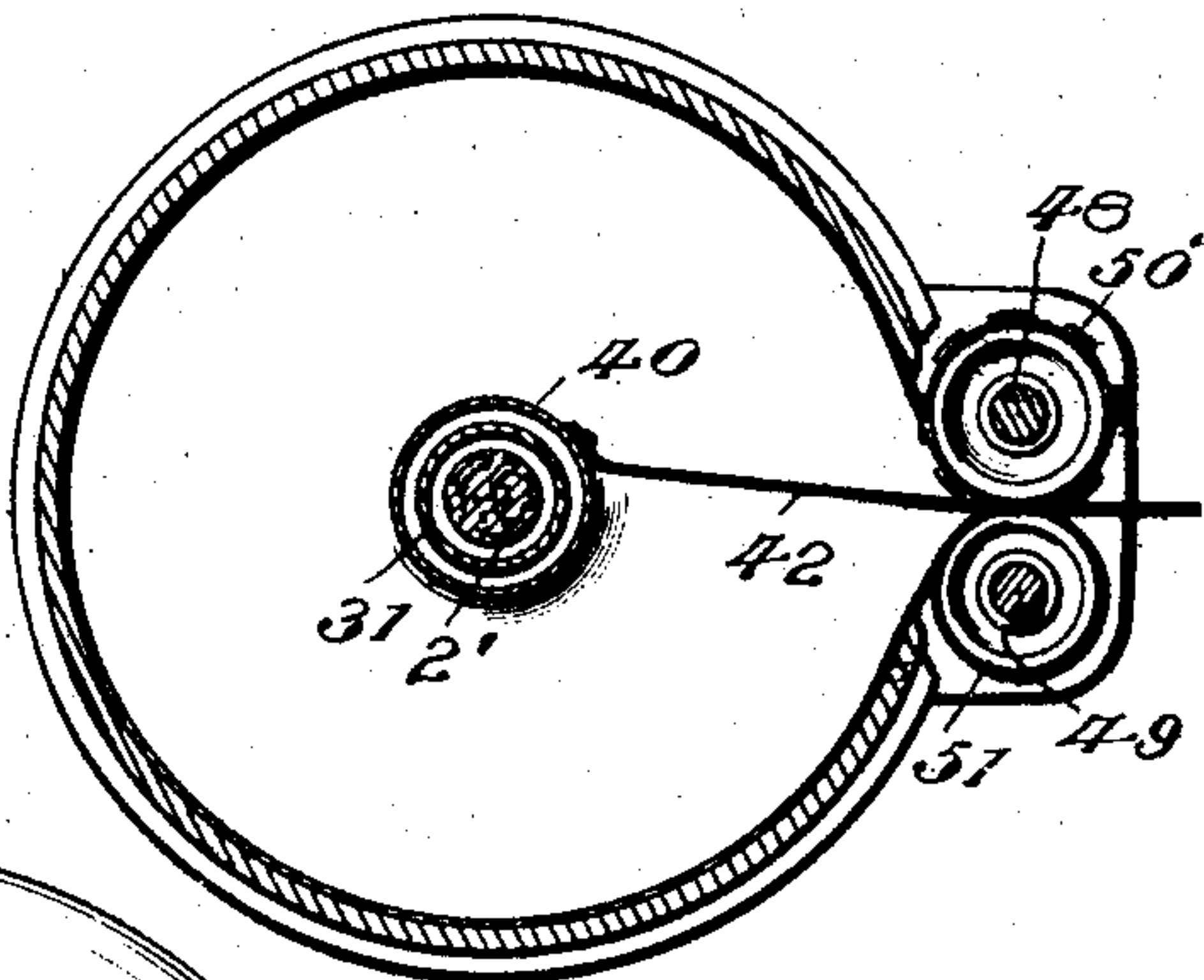
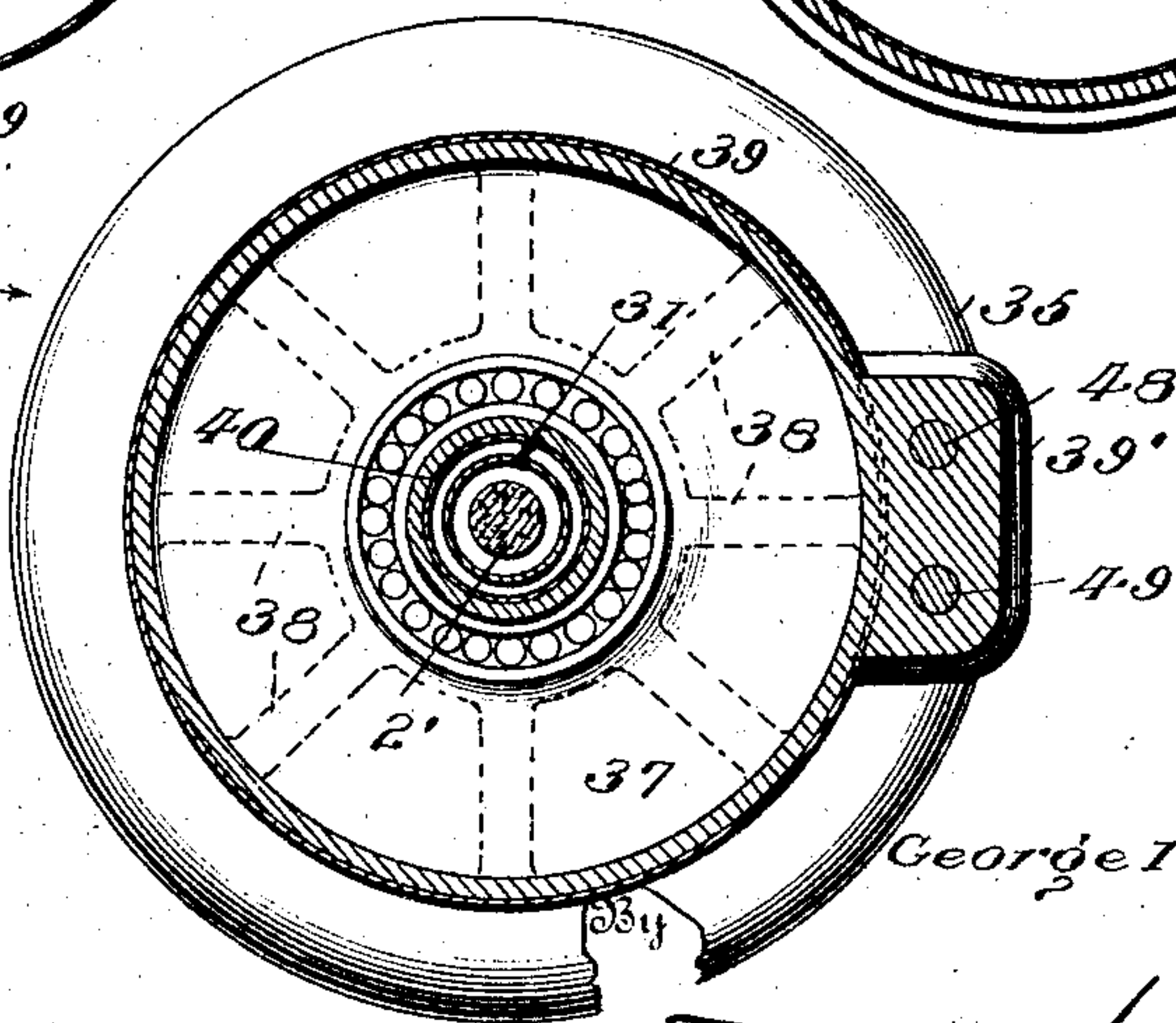


Fig. 12.



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5 SHEETS—SHEET 4.

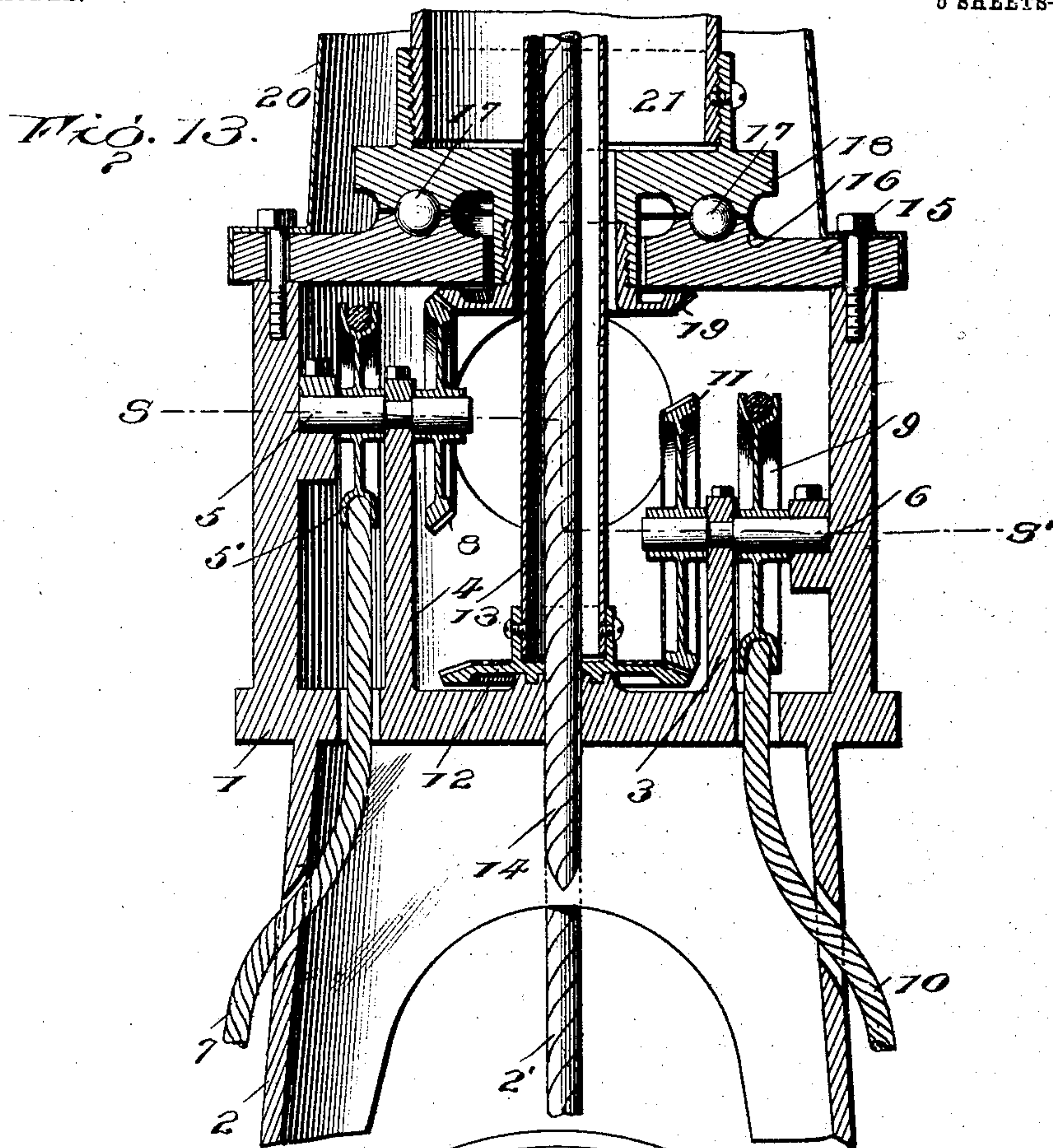
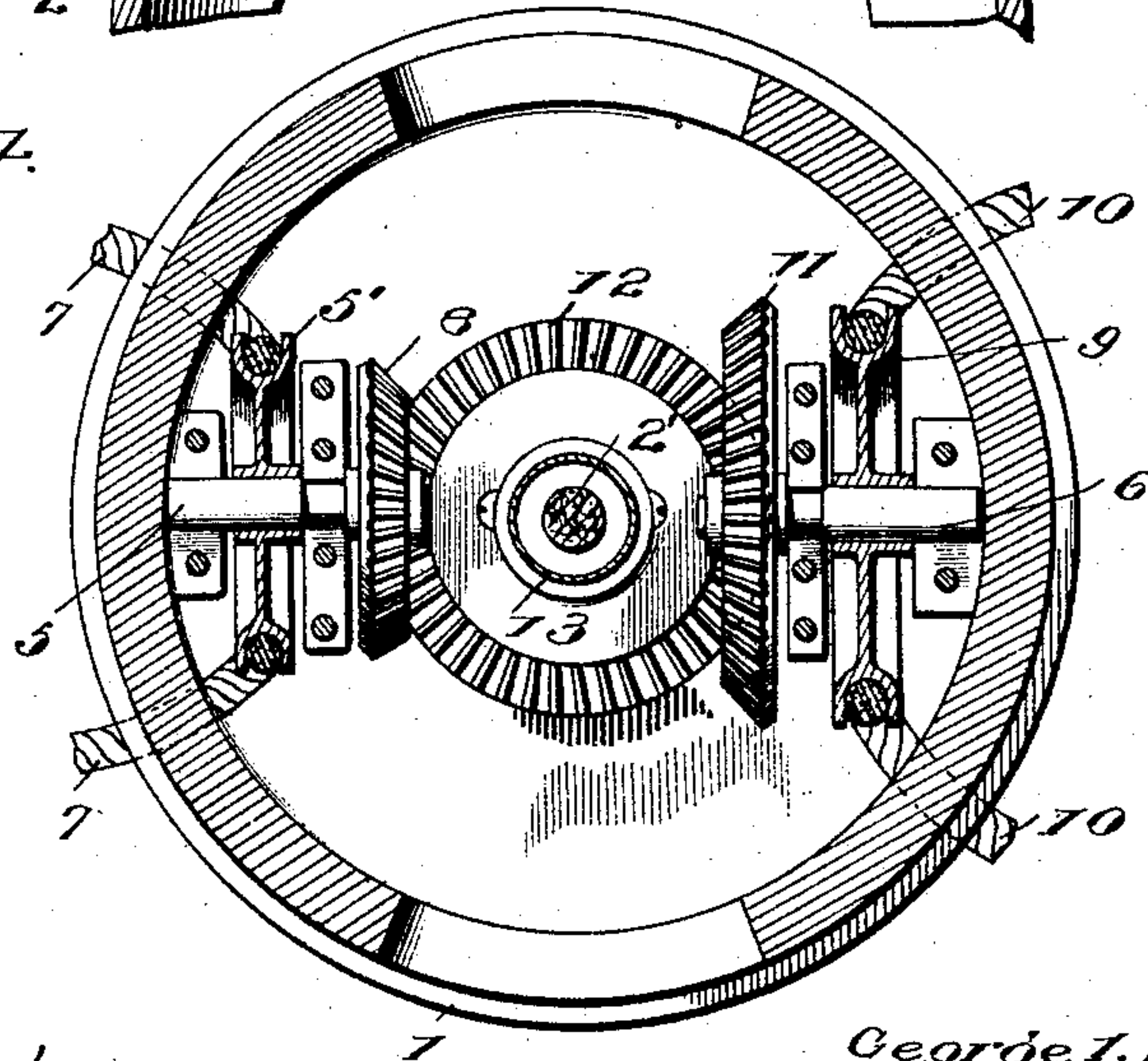


Fig. 14.



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5 SHEETS—SHEET 5.

Fig. 15.

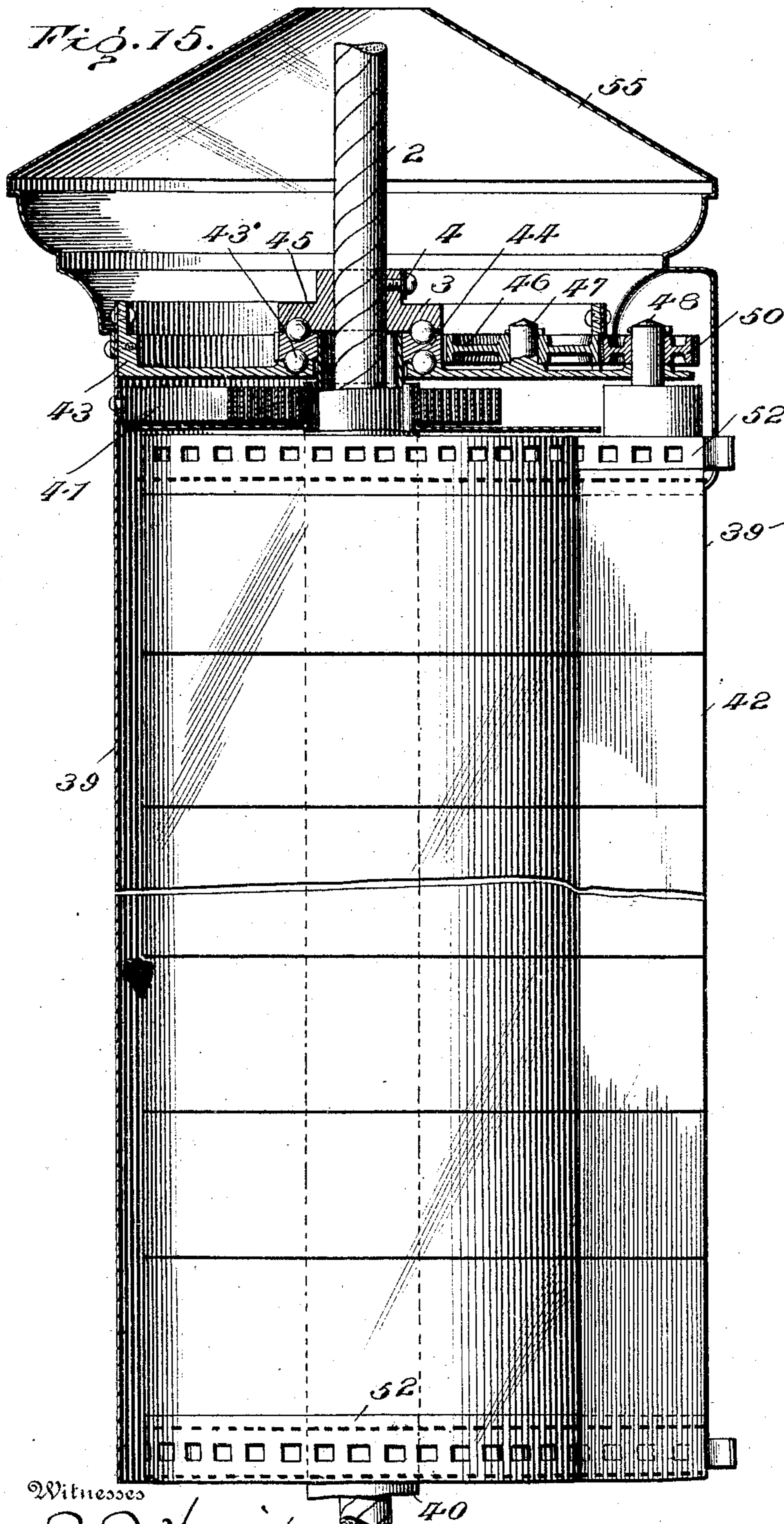
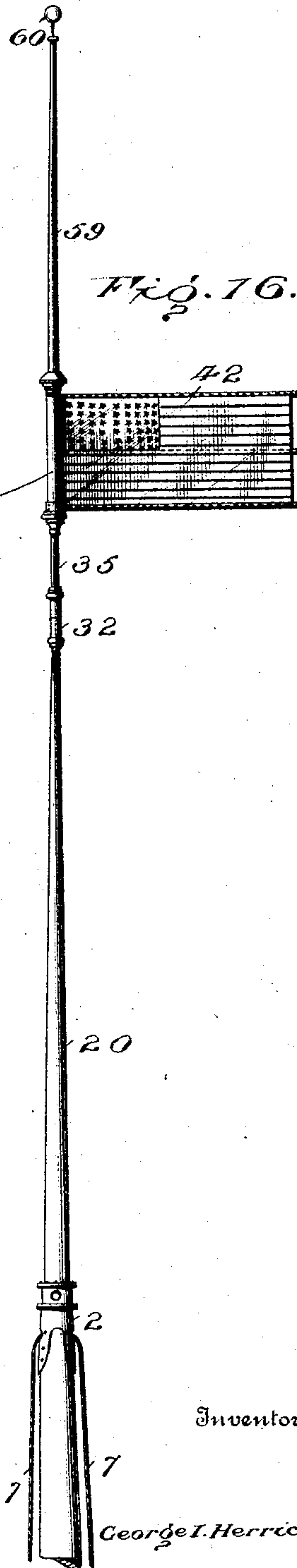


Fig. 16.



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UNITED STATES PATENT OFFICE.

GEORGE IRA HERRICK, OF WHEATON, ILLINOIS.

FLAG CASE AND POLE.

SPECIFICATION forming part of Letters Patent No. 765,427, dated July 19, 1904.

Application filed September 19, 1903. Serial No. 173,791. (No model.)

To all whom it may concern:

Be it known that I, GEORGE IRA HERRICK, a citizen of the United States, residing at Wheaton, in the county of Dupage and State of Illinois, have invented new and useful Improvements in Flag Cases and Poles, of which the following is a specification.

My invention relates to improvements in flag poles or staffs, and aims to produce a device of this class which while being simple and lacking complication of structure is at the same time useful and readily adaptable to various services.

More particularly, the subject of my invention is a flagpole adapted to receive the flag within a portion of the same to protect it from the ravages of the elements and embodies mechanism whereby the flag may be wound within the casing and let out when desired, doing away with the necessity of hauling down and up the flag. Further, there is provided means whereby when the flag is floated any wrapping of the flag around the casing or staff is avoided and remedied, embodying means for turning the flag-casing in the direction of the wind to give thereto the full length of the flag. Also there is provided means for half-masting adapted to be detachably secured above the pole to give the appearance of the flag as that of being at half-mast. The flagstaff proper of the pole is formed in sections, and it must be readily apparent that it may be disjoined and that any number of sections may be introduced.

Further objects of this device will appear on reading the following description and upon reference to the accompanying drawings.

In the drawings, Figure 1 is a vertical section of the upper portion of the mast. Fig. 2 is a vertical section of the central portion, showing the joints for holding the sections of the pole together. Fig. 3 is a horizontal cross-section of the jointure of the sections on line J J J of Fig. 2. Fig. 4 is a vertical section of an attachment to be placed on top of the pole for half-masting. Fig. 5 is a horizontal section of this attachment, taken on line A A of Fig. 4. Fig. 6 is a horizontal section of the main casing, taken on line C C' of Fig. 1. Fig. 7 is a horizontal section on line D D'

of Fig. 1. Fig. 8 is a horizontal section of Fig. 1, taken on line E E', showing the spring tending to keep the flag rolled on the spool. Fig. 9 is a section on line F F' of Fig. 1. Fig. 10 is a horizontal cross-section of Fig. 1 on line G G', showing the wheels which act to draw and withdraw the flag into and out of the casing. Fig. 11 is a similar section of Fig. 1, taken on line H H', showing the flag withdrawn from the case and also the spool upon which the flag is adapted to be wound. Fig. 12 is a horizontal section of Fig. 1 on line I I', showing the ball-bearings upon which the spool rests and also shows the extension of the main casing. Fig. 13 is a vertical section showing the mechanism at the bottom of the flagpole for the operation of the flag from below. Fig. 14 is a similar section of Fig. 13 on line S S'. Fig. 15 is a detail view of the flag-casing, partly in elevation. Fig. 16 is a side elevation of the entire device.

Referring first to Fig. 13, 1 is a base to support the device, being a circular casing having the portion 2, adapted to support the same upon a mast or tower. Within this support are lugs 3 and 4, which, together with the outer casing-wall, support the shafts 5 and 6. Shaft 5 carries the pulley 5', over which runs an endless cable 7, and a gear-wheel 8. The shaft 6 carries the pulley 9, supporting endless cable 10, and the gear-wheel 11. The cables 7 and 10 run down through casing 1 into the portion 2 and through the latter, as indicated. Within the casing 1 is mounted the gear-wheel 12, which meshes with and is revolved by wheel 11. Secured to this wheel 12, which is mounted in a bearing on the base of casing 1, is the hollow tube 13, which revolves with the wheel 12 and within which is mounted the lightning-rod 14. Mounted on top of casing 1 is the plate 15, which has an opening therein through which projects the tube 13. Upon this plate 15 is an annular grooved portion 16, which has balls 17 thereon upon which is carried the supporting member 18, provided with the extension supporting the gear-wheel 19, which engages within the casing with the wheel 8. Upon the plate 15 is carried the conical hollow pole 20, which surrounds the member 18

and tube 13, and within this pole 20 upon the member 18 is the hollow tube 21, which revolves with the turning of member 18 upon the actuation of the cable 7, which drives pulley 5 5', shaft 5, wheel 8, and wheel 19, mounted on the said member 18. It is also to be here noted that upon actuation of cable 10 the pulley 9 revolves shaft 6, by which is revolved wheel 11, which in turn engages and rotates the gear-wheel 12, carrying tube 13, which is thereby revolved.

The pole 20 being conical forms a brace at its open top portion for the tube 21, as seen in Fig. 2, and just above this point where the pole 20 ends the tubes 13 and 21 and the rod 14 are sectioned, whereby the flagstaff may be taken apart. The tube 21 has mounted thereon the tube 23 of the same diameter, whose ends are adapted to interlock with those of the tube 21, as seen in Fig. 3, to hold the same thereon, and collar 24, detachably secured to tube 23, is also provided to brace these parts. This collar 24 extends above and below the joints of the two tubes and is held in place by braces 25, which are secured to an outer casing 26, surrounding these parts and mounted on pole 20. The tube 13 has a somewhat similar structure having a tube 27 of the same diameter mounted on its end portions. The ends of this tube interlock with those of tube 13 in the same manner as do those of tubes 21 and 23; but within tube 27 is the collar 28, which enters the tube 13 and holds the tube 27 in rotatable engagement therewith. A joint 14' is formed in the rod 14, which receives the rod 2', held thereon by sleeve 29, which also by means of its outwardly-curved upper end 29' aids to support the rod 2' by engagement with the collar 28. Mounted at the upper end of tube 27 is a coupling member 30, whose upper end is reduced in diameter and receives the uppermost section 31 of the inner revoluble members 13 and 27. The outer casing 26 is adapted to support a similar casing 32, which carries lugs 33, that are adapted upon elevating this section to give access to the interior mechanism to engage the groove 34 of the section 35 of the outer casing, with which it telescopes, and be thereby held in an elevated position out of the way.

Upon the upper end of the tube 23 is carried the enlarged circular casting 37, having a downwardly hollow extended portion fitting within the tube 23 and being provided with a ball-race carrying balls 38' upon the inner wall of the hollow extended portion. This casting is further provided with an enlargement 37 and supporting-ribs 38. To this casting 37 is secured the outer section of casing 35, before mentioned; which is enlarged to encircle the lower portion of the casting 37. Secured within the vertical main body of casting 37 is the flag-casing 39, which is provided with an opening for a flag and an

extended portion 39', formed opposite thereto integral with the casing 39.

Within the casing 39 is mounted spool 40, carried by the balls 38', which spool fits over the tube 31 and carries the spring 41, connected to the casing 39, which actuates the said spool as a reel. This spool has the flag 42 secured thereto and reels the same when desired. Also upon this casing 39, within the same, is secured plate 43, having friction-balls 43' mounted thereon. This plate of course has a central opening to permit of the passage of the tube 31 and rod 2' therethrough. Just above the balls is carried a gear-wheel 44, secured to the tube 31, having balls mounted in the upper face thereof and being mounted on balls 43'. This wheel 44 supports collar 45, which is rotatable thereon and which carries the rod 2'. Mounted on the plate 43 is the gear-wheel 46, carried by the shaft 47 and meshing with said wheel 44. Also mounted in this plate 43 and the extended portion of the casing 39 are the shafts 48 and 49, carrying gear-wheels 50 and idlers 51. The upper wheel 50 engages the gear 46 and is rotated thereby. There are three sets of these wheels 50' 51', one at the top, middle, and lower end of the shafts 48 and 49, and between these wheels 50' and 51' runs the flag. The flag 42 is provided with strips at the parts corresponding to the wheels 50' and 51', and these strips 52 have openings therein to engage on the teeth of wheel 50' whereby the flag may be pulled in or out between the wheels 50' and 51'. These strips also serve the purpose of taking up the wear on the flag.

Upon the top of the casing 39 is adapted to be placed a cap 55, which is secured to a bolt 55', held upon the said rod 2', and, as seen in Figs. 1, 4, 5, and 16, there is a means which may be manually applied to the said cap and held thereon which gives the pole an increase in height, which lends to the flag the appearance of being at half-mast. This means comprises a hollow pole 59, carrying at its upper end a bolt 60 and having arranged within its lower end a brace 57, which carries a nut 56', rigidly secured thereon. When it is desirable to attach the said half-masting means, we take hold of the hollow pole 59, place the nut 56' over the bolt 55', and turn the hollow pole until it is securely fastened to the cap 55.

The operation of the apparatus in its various parts is readily understood, as it has been pointed out in the description, but briefly is as follows: Should the flag be desired to be floated, the gearing connected with the outer tube or pole 21 is operated by the cable 7, whereby the tube is turned so that the opening of the flag-casing is turned to the direction of the wind to prevent the wrapping of the flag around the upper part of the staff. The gearing connected with the tube is then

operated, and the upper sections of this tube actuate the gear 44, secured to the uppermost section of tube 13, the part 31, which in turn operates gear 46, that engages with and rotates the upper wheel 50, secured to the shaft 48. The shaft 48 turns, thereby revolving the sets of wheels 50' and 51', the former engaging the strips 52 of the flag by means of the teeth thereon entering the openings of these strips, and the flag is thereby reeled out, guided by the wheels 51. In reeling in the flag the cable 10 is turned in the opposite direction, whereby the direction of rotation of the revoluble parts is reversed and the flag wound up on the spool 40, which is actuated by means of the tension of spring 41. To gain access to the parts within the upper sections of the pole, it is only necessary to raise the outer section of the casing 32 until the lugs 33 engage in the groove of section 35, whereupon it will be held in elevated position. When this has been done, the collar 24 may be removed from the section 31 and this whole upper part of the staff raised out of the lower portion and taken down for any repairs or for the purpose of attaching the half-masting means, as before described.

The parts of this device are all light, easily handled, simple, strong, and durable. The specific arrangement of the parts is not the essential idea of the present invention, and many changes may be introduced in the structural features without departing from the spirit of my invention. The number of tubes, the structure of the vertical casing, the gearing for the shafts, which may be varied in number and manner of mounting, all may have variations introduced, as is desirable. Furthermore, I desire not to be limited to the exact structure of the support nor the driving-gear for the flagstaff and its parts, which may be altered at will; but

What I desire to protect by Letters Patent and what I claim is as follows:

1. A device of the type set forth comprising in combination with a support, driving means carried thereby, tubular poles mounted one within the other and adapted to be rotated independently by the said driving means, and flag-reeling means adapted to be actuated by the inner of said poles, substantially as described.

2. In a flagstaff, a support, tubular poles carried thereby rotatable one within the other, a flag-casing carried at the upper end of the outer pole, flag-reeling means adapted to be actuated by the inner pole, and means for rotating said poles, substantially as described.

3. A flagstaff of the character described, comprising a support, rotatable sectional poles carried one within the other rotatably mounted thereon, an outer sectional casing surrounding said poles, a flag-casing carried at the upper end of the outer pole, a spring-actuated flag-reeling means mounted within

said casing, and adapted to be unwound on rotation of the inner pole, substantially as described.

4. A flagstaff of the class described comprising a rotatable outer pole, a flag-casing rotatable therewith, an inner rotatable pole, reeling means for a flag adapted to be actuated by the last-named pole, and means for rotating said poles, substantially as described.

5. A sectional flagstaff comprising a support, sectional tubular poles rotatably carried thereby, said poles being arranged one within the other, an enlarged flag-casing carried at the upper end of the outer pole and rotatable therewith, said casing being adapted to receive a flag therein, a flag-spool mounted therein upon the inner pole, spring means for rotating said spool, vertical shafts carried within the flag-casing, a series of toothed wheels mounted on one of said shafts, idlers carried by the other of said shafts in alignment and in close proximity to said toothed wheels whereby a flag is adapted to be passed between the same, means engaging said inner pole adapted to rotate said shafts, and means for rotating said poles, substantially as and for the purpose set forth.

6. A flagstaff comprising interiorly and exteriorly arranged rotatable tubular poles, a flag-casing carried upon and rotatable with the outer pole whereby the flag may be turned to the wind to prevent wrapping around the staff, flag-reeling means mounted within the casing, and means for independently rotating said poles, substantially as and for the purpose set forth.

7. A device of the type set forth comprising a support having a conical pole secured thereto, interiorly and exteriorly arranged sectional poles carried within said first-named pole, means for locking the sections of the poles together, a flag-casing carried at the upper end of the outer pole, a flag-winding means carried within the casing adapted to be actuated by the said interior pole and means for rotating said poles, substantially as and for the purpose set forth.

8. The combination with a sectional flagstaff comprising interiorly and exteriorly arranged rotatable poles having a flag-casing revoluble with the outer pole, and a winding means for a flag actuated by said inner pole, of a flag adapted to be wound upon said winding means provided with strips having openings therein to engage upon said winding means, substantially as described.

9. In a flagstaff of the character described, the combination with a flag-casing, and flag-winding means mounted therein, of a flag provided with strips across the same having openings therein adapted to engage the winding means whereby said flag is adapted to be reeled in and out by said means, substantially as and for the purpose set forth.

10. In a device of the character set forth,

the combination with a support of vertical rotatable members arranged one within the other, a flag-casing rotatable with one of said members, having flag-winding means therein, and means for rotating said members independently of one another, substantially as set forth.

11. In a device of the type set forth, the combination with a support of vertical rotatable members, flag-winding means carried by one of said members, and adapted to be actuated by the other of said rotatable members, and means for actuating the rotatable members, substantially as and for the purpose set forth.

12. A flagstaff of the type set forth, comprising rotatable sectional members arranged one within the other the outer of said member having a flag-casing arranged at the top thereof provided with a top, and means adapted to be secured upon the said top to give the appearance of half-masting the flag, substantially as described.

13. In a flagstaff of the type set forth, a rotatable member carrying a flag-receiving casing rotatable therewith, a flag-winding means carried within the casing, a second rotatable member adapted to actuate the said winding means, and means for actuating said members, substantially as and for the purpose set forth.

14. A flagstaff comprising in combination with a support, a rotatable vertical member, a flag-casing carried thereby, a flag arranged within the said casing provided with strips having openings formed therein, means for rotating said member and casing, flag-wind-

ing means mounted in said casing, and means for actuating the same, substantially as and for the purpose set forth.

15. In a device of the type set forth, the combination with rotatable, interiorly and exteriorly arranged members, a flag-casing carried by one of said members, flag-winding means carried within the casing and actuated by the other of said members, and means for turning said last-named member independently of the first-named rotatable member, substantially as described.

16. A flagstaff comprising a support having a conical member thereon, driving means carried within the support, a rotatable member mounted within the conical member adapted to be actuated by the driving means, a second rotatable member supported on the base of said support, flag-winding means carried by the first-named member, and means connecting the same with the second member whereby said winding means is actuated thereby, substantially as set forth.

17. In a flagstaff of the type set forth, rotatable interiorly and exteriorly arranged members, flag-winding means carried by one member and actuated by the other, and a rotatable casing for the flag, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GEORGE IRA HERRICK.

Witnesses:

R. P. HERRICK,

SAMUEL HERRICK.