

No. 667,955.

Patented Feb. 12, 1901.

J. SCHADE, JR.  
REGISTERING TOY BANK.

(Application filed Sept. 12, 1900.)

(No Model.)

3 Sheets—Sheet 1.

FIG. 1.

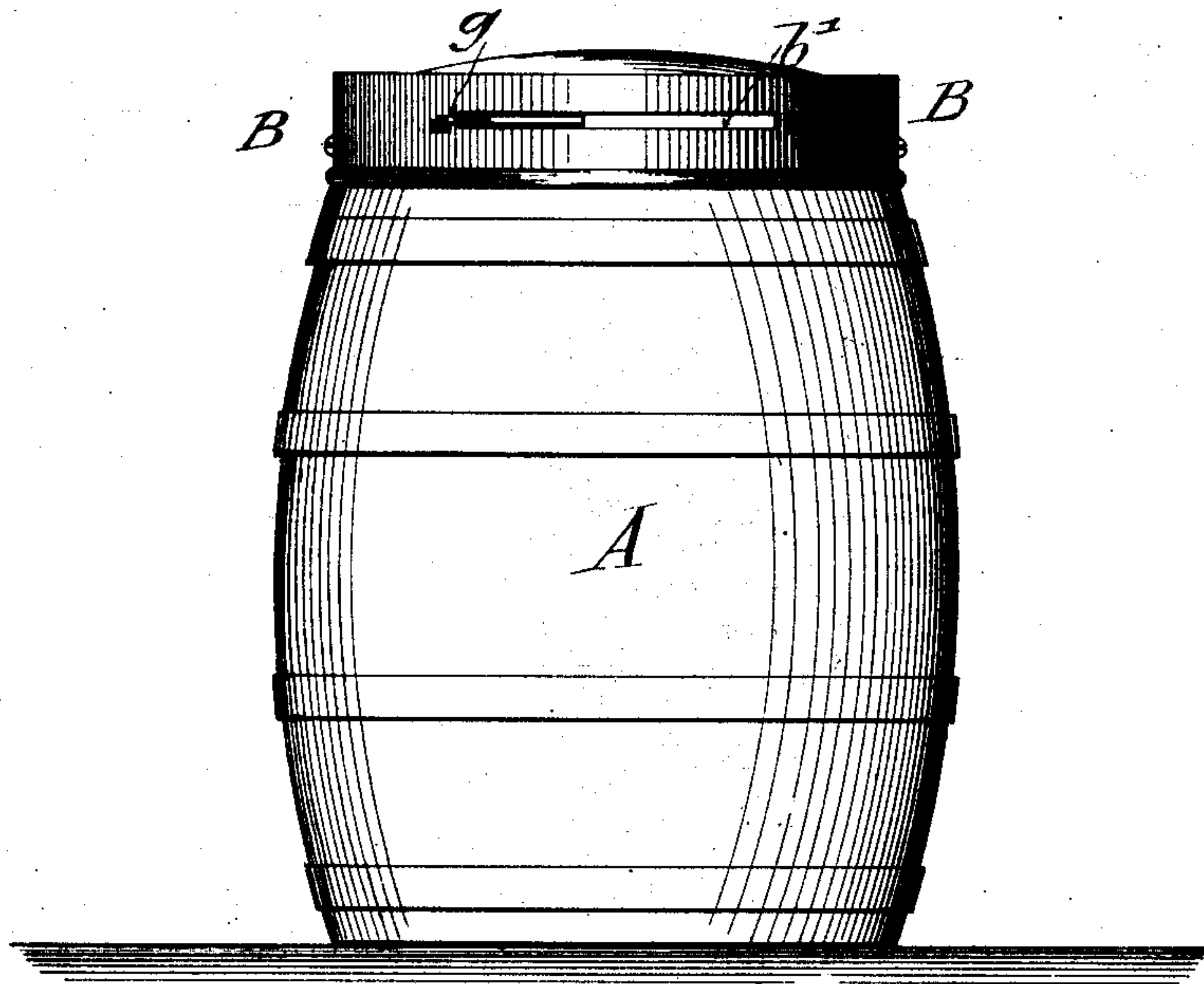
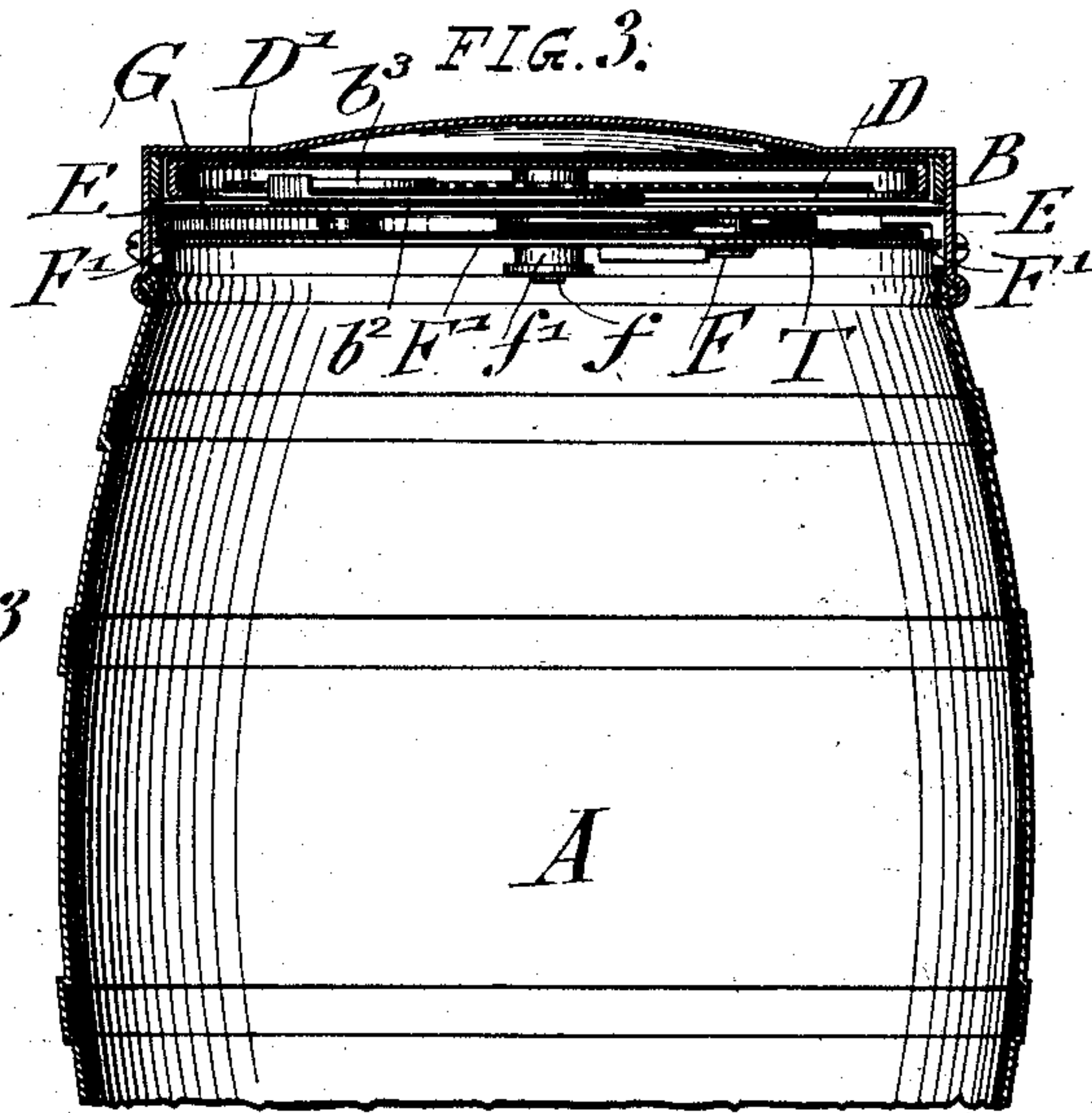
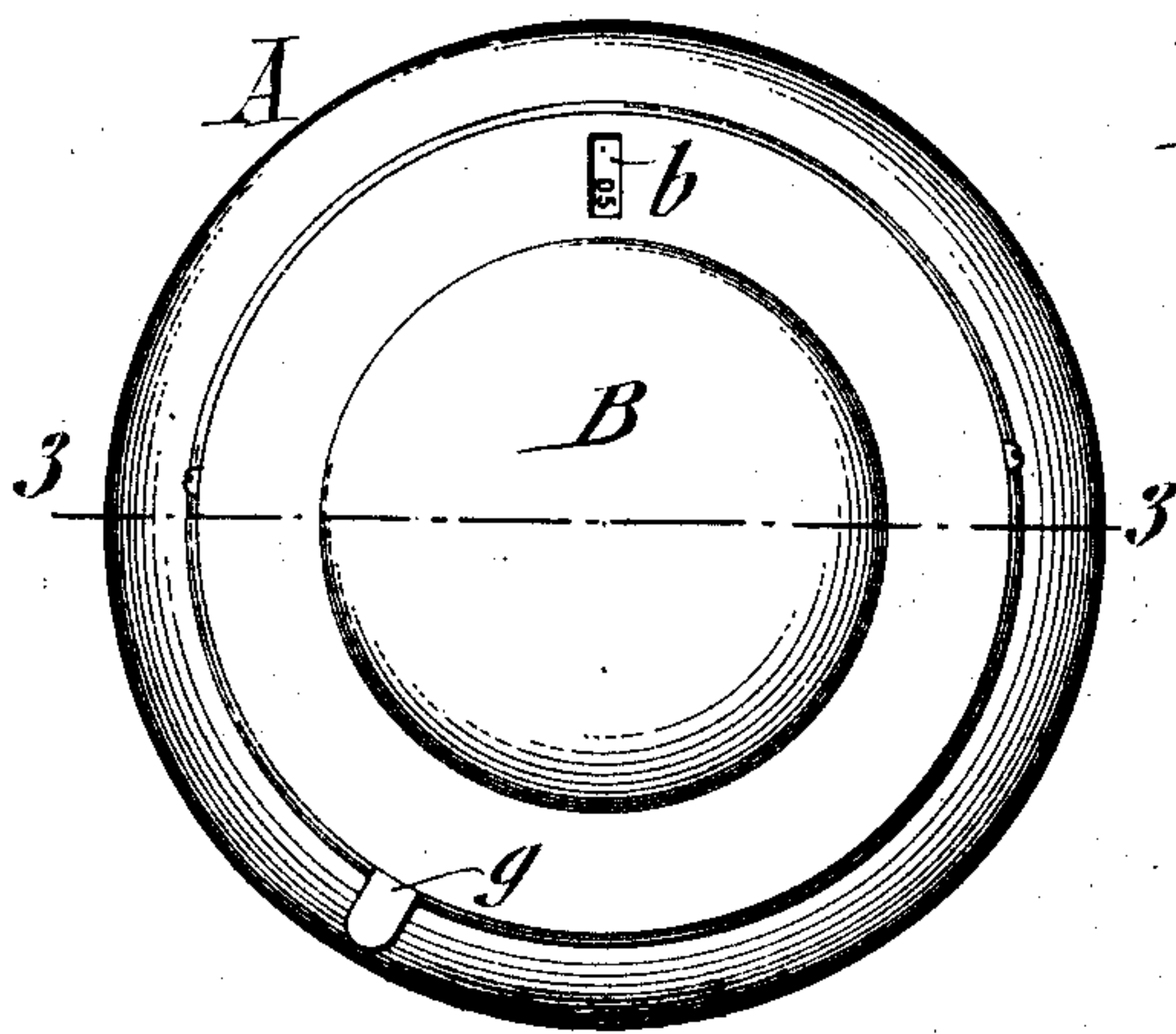


FIG. 2.



WITNESSES:

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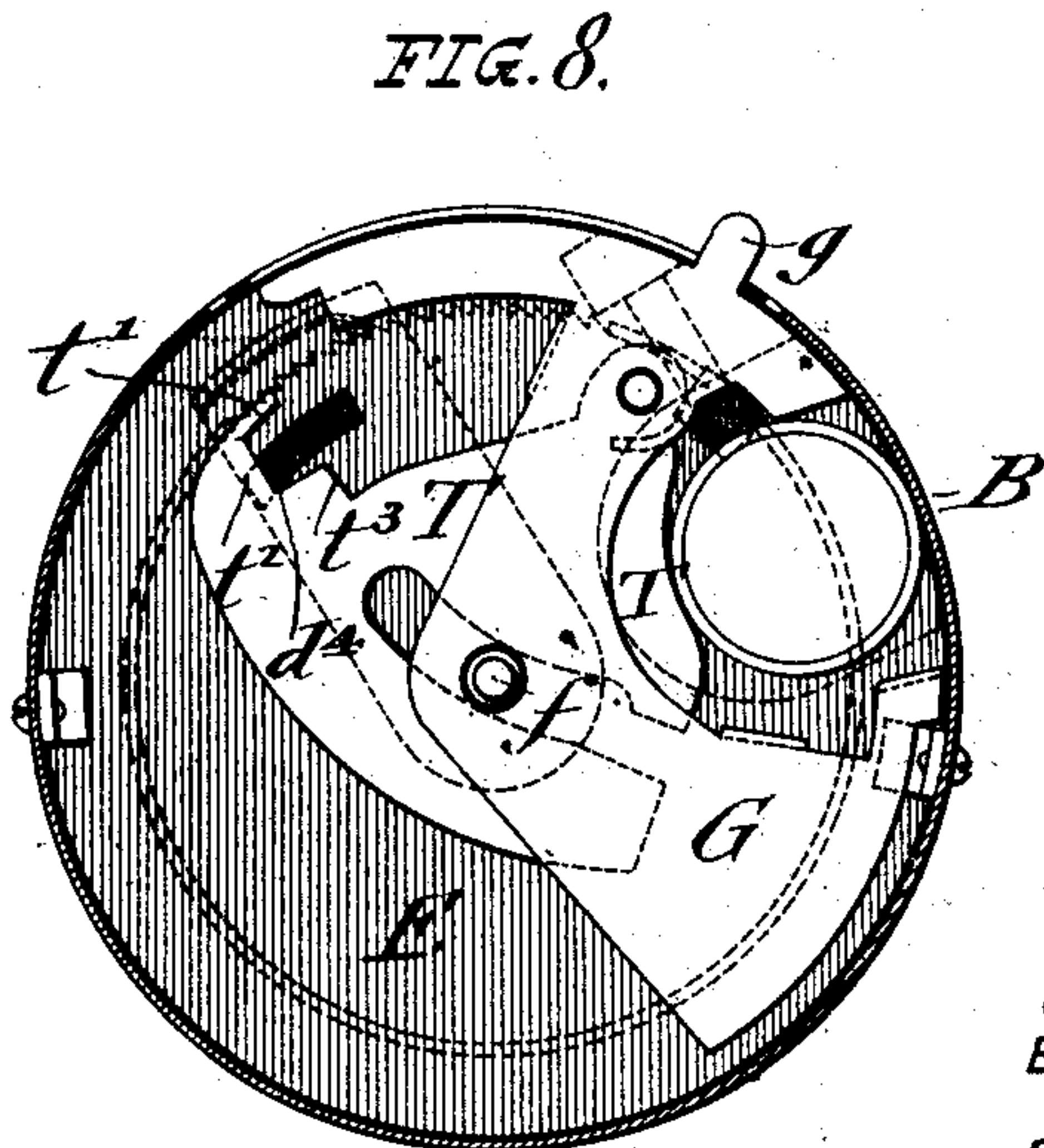
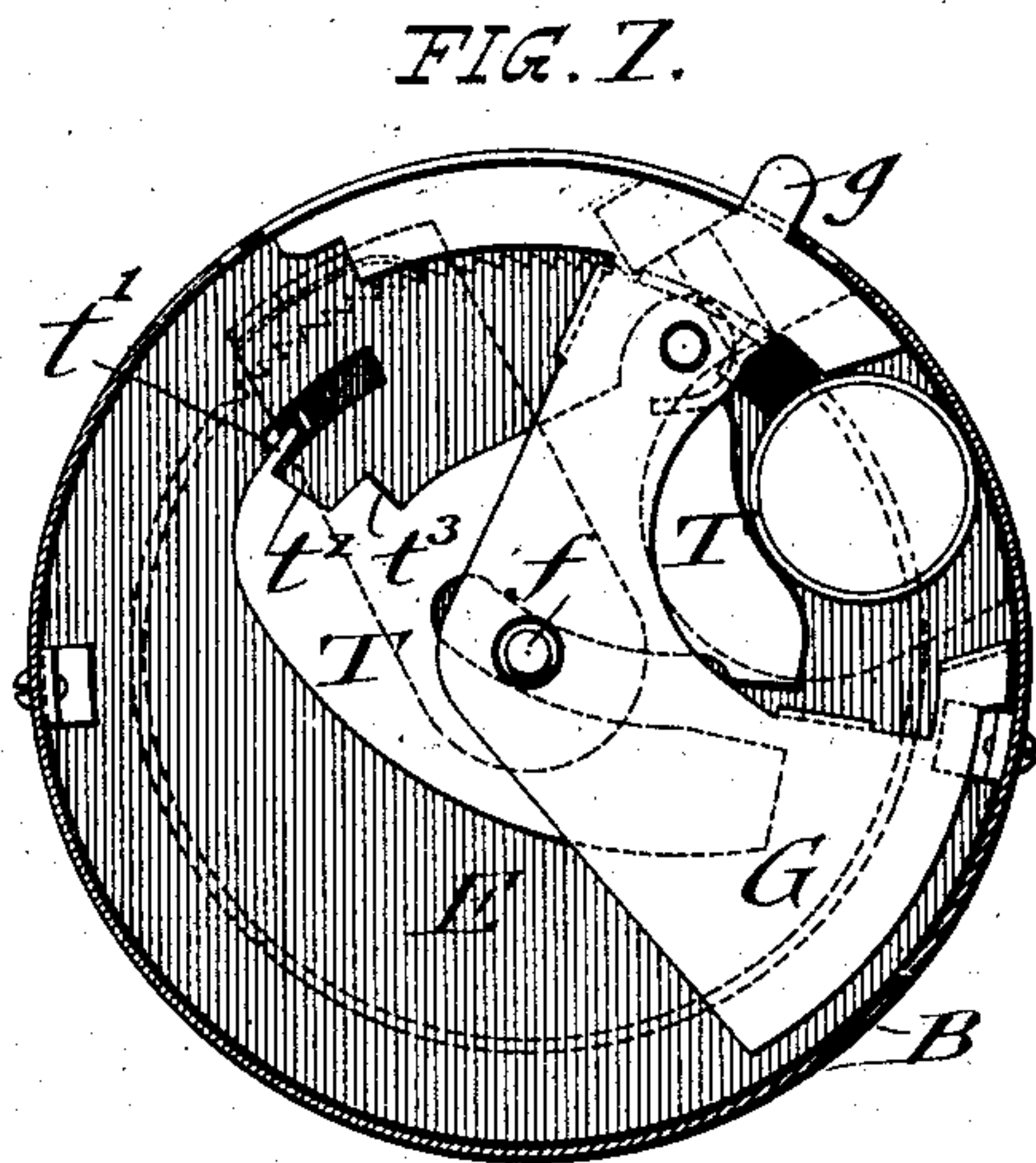
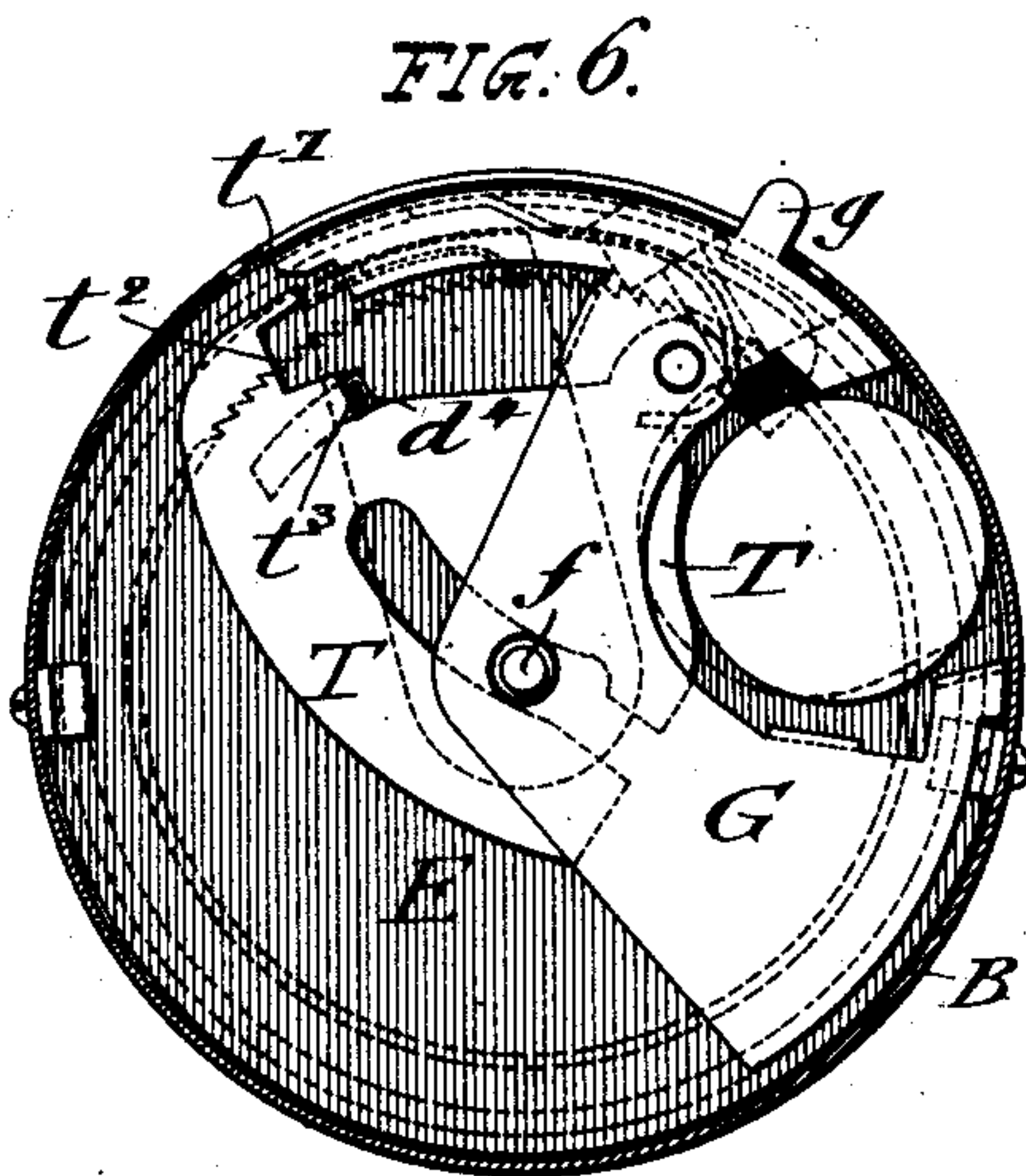
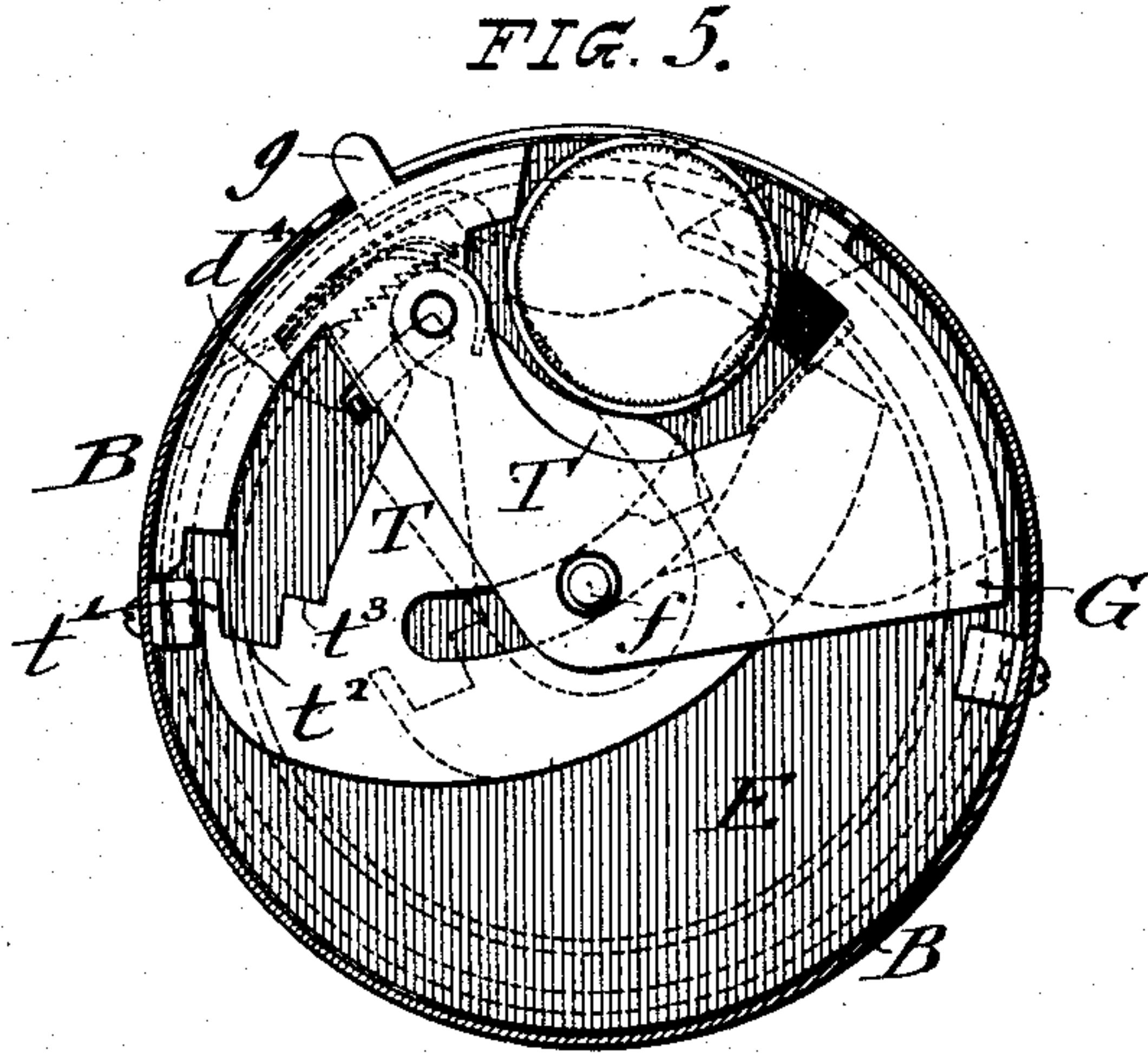
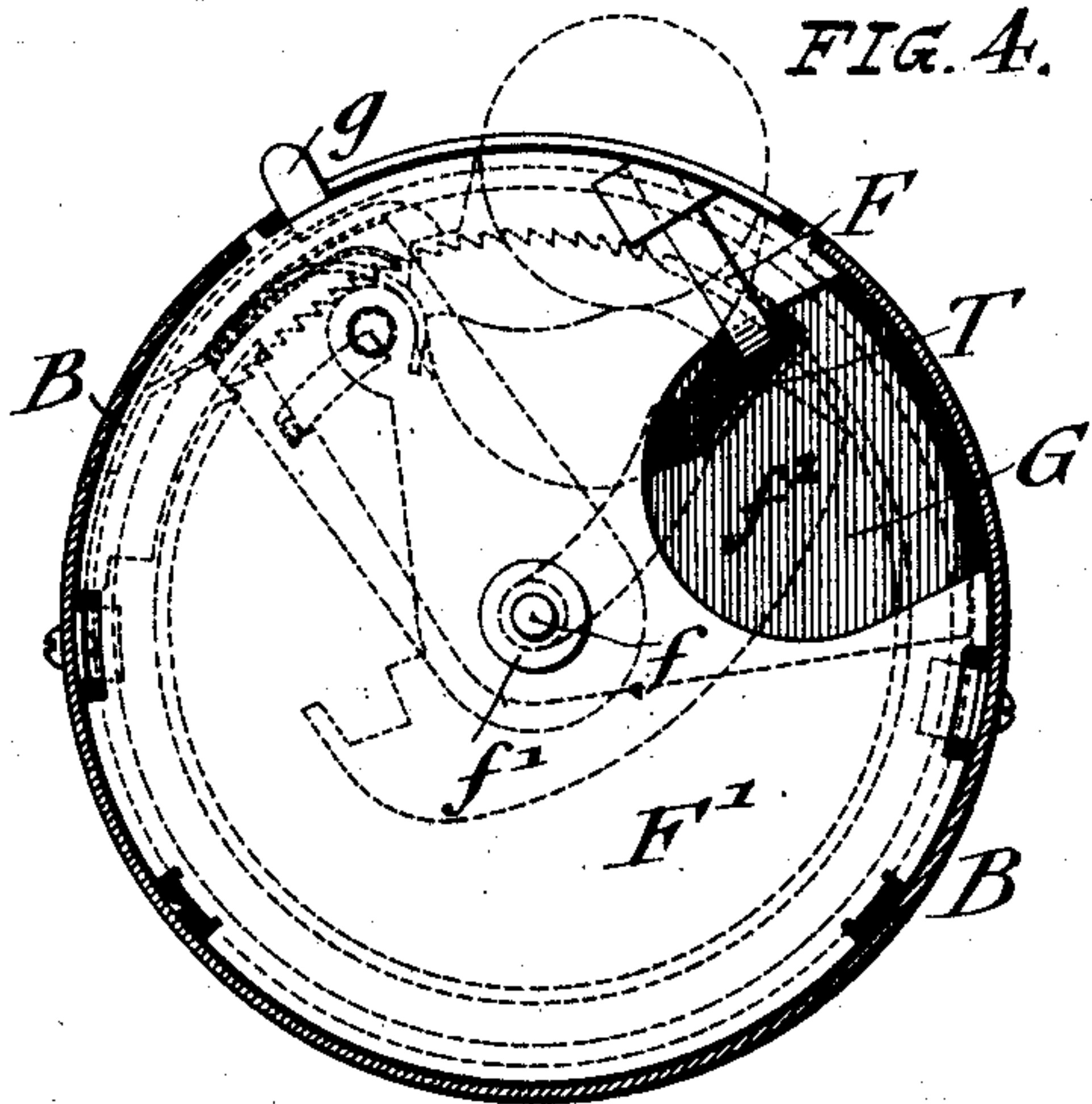
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(Application filed Sept. 12, 1900.)

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3 Sheets—Sheet 2.



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No. 667,955.

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FIG. 9.

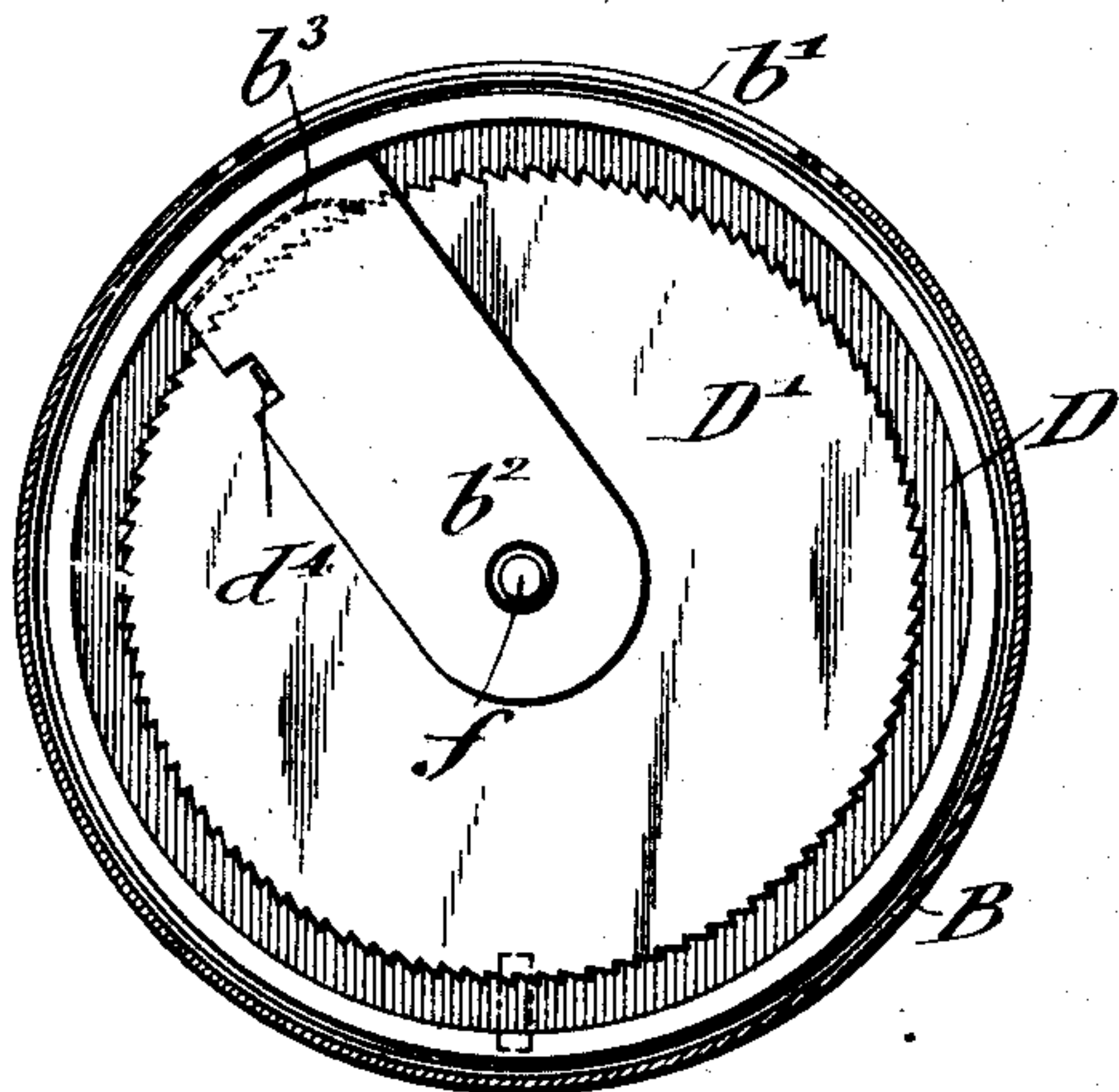


FIG. 10.

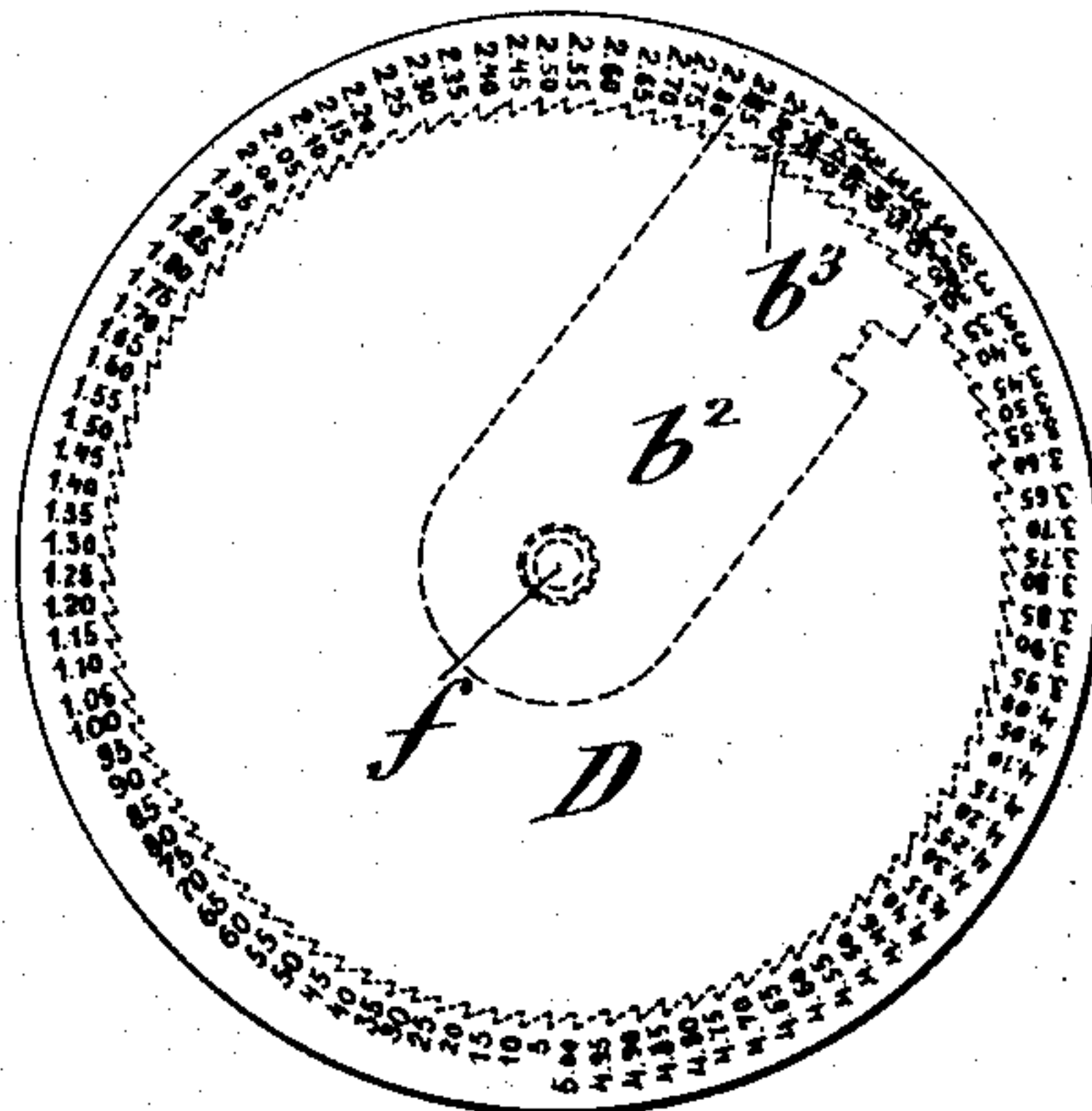


FIG. 11.

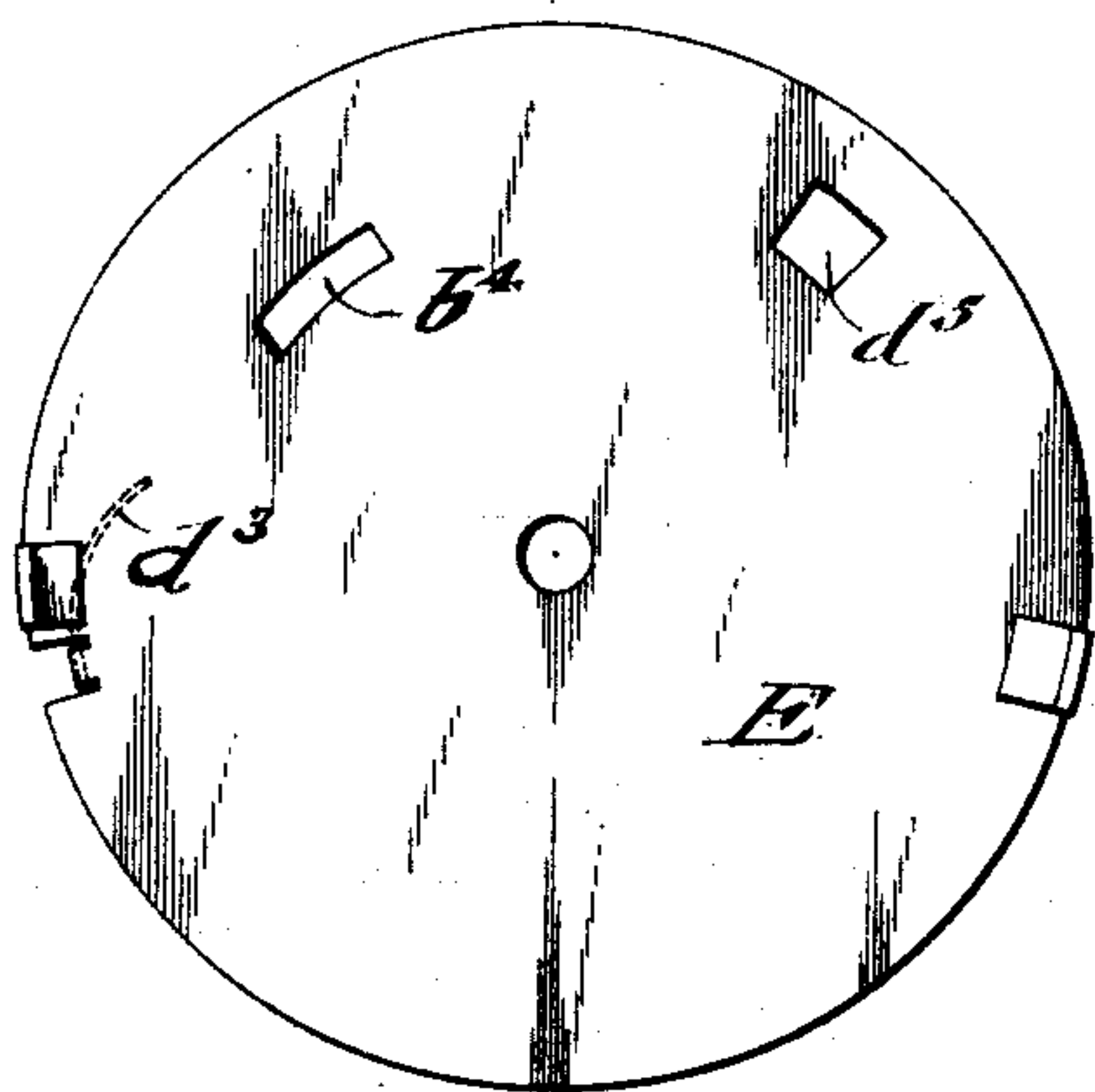


FIG. 12.

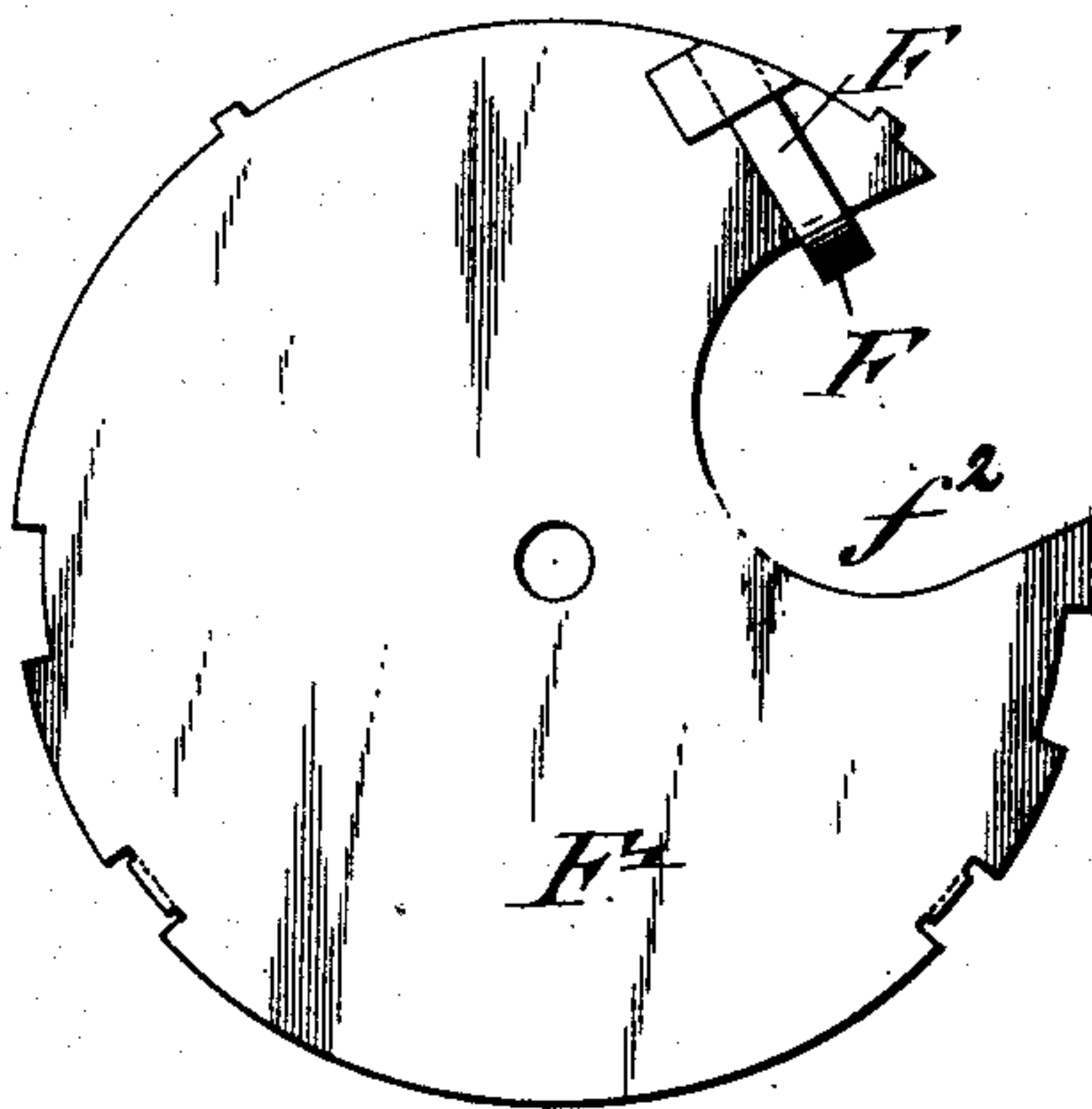


FIG. 13.

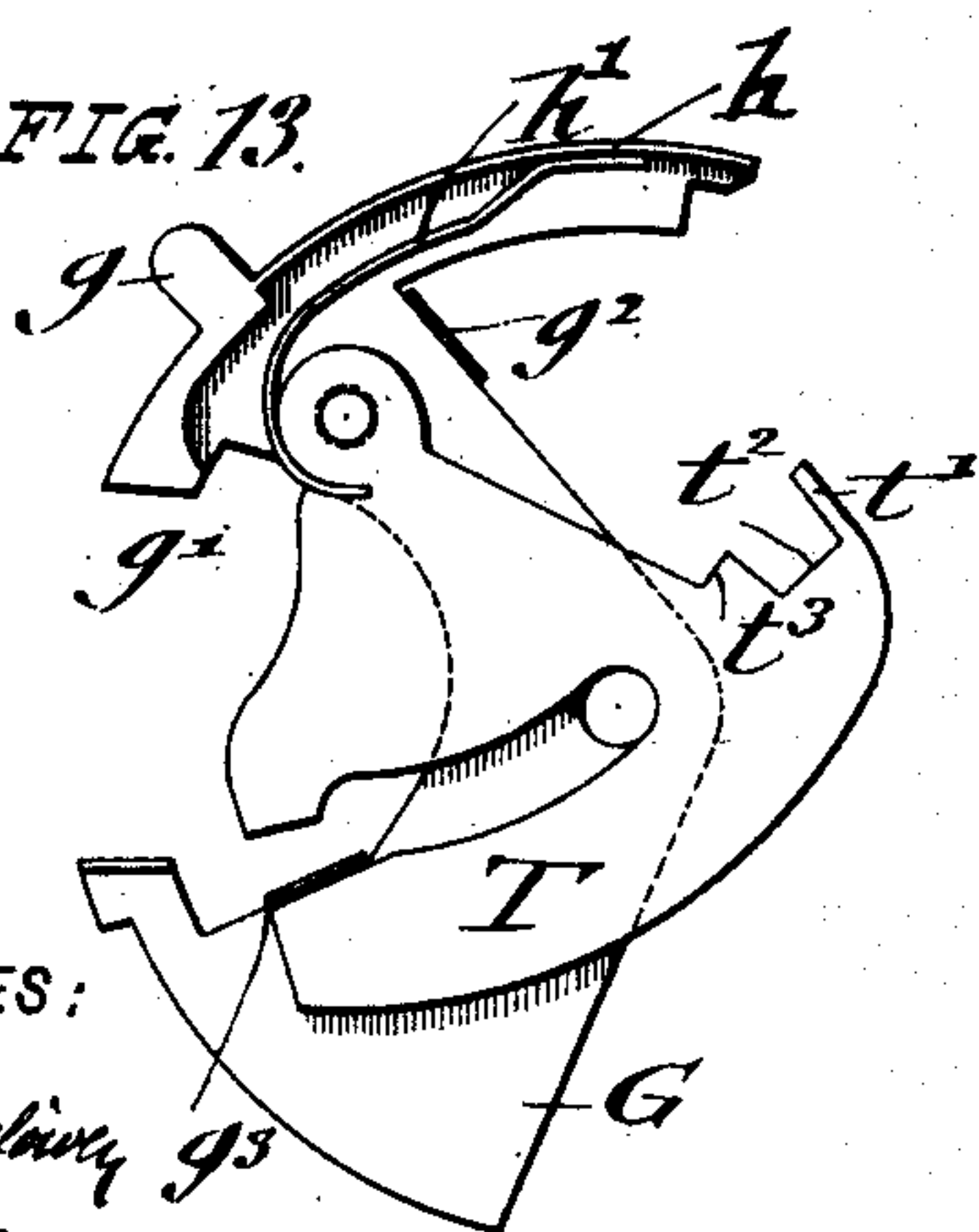
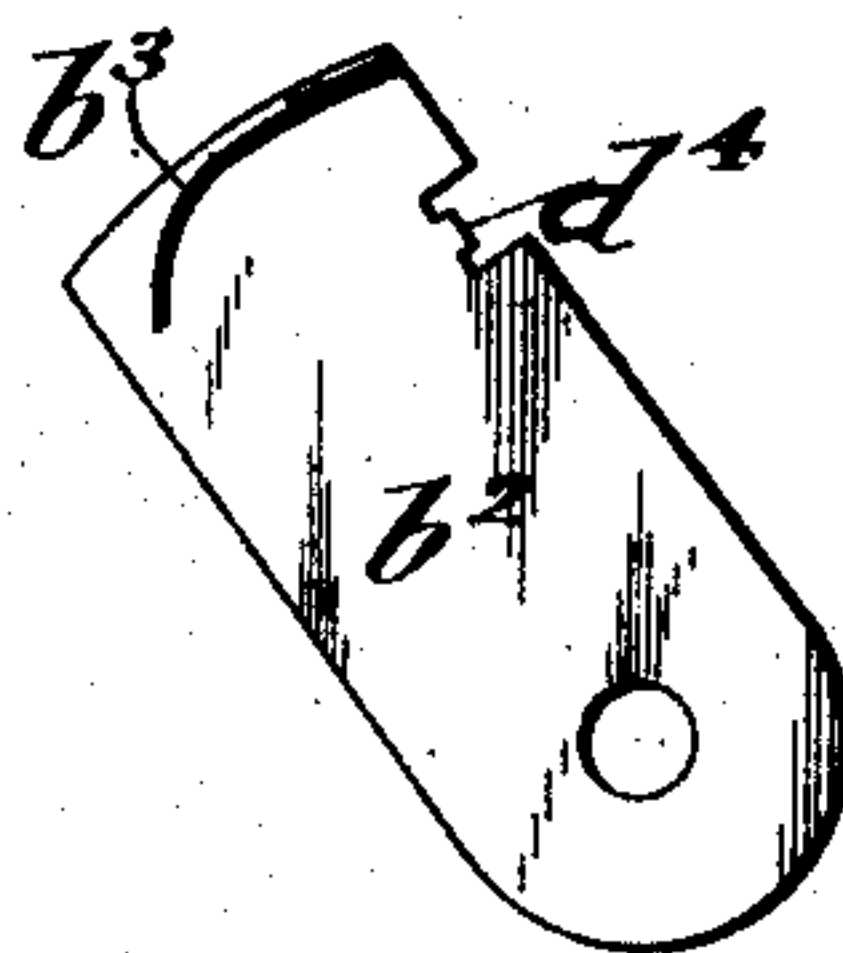


FIG. 14.



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# UNITED STATES PATENT OFFICE.

JOHN SCHADE, JR., OF NEW YORK, N. Y., ASSIGNOR TO SCHADE & CO.,  
OF SAME PLACE.

## REGISTERING TOY BANK.

SPECIFICATION forming part of Letters Patent No. 667,955, dated February 12, 1901.

Application filed September 12, 1900. Serial No. 29,762. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN SCHADE, Jr., a citizen of the United States, residing in the city of New York, borough of Brooklyn, State of New York, have invented certain new and useful Improvements in Registering Toy Banks, of which the following is a specification.

This invention relates to certain improvements in that class of toy banks known as "registering" toy banks, in which not only individual coins of one denomination, such as five-cent pieces, can be registered, but in which indiscriminately coins of different denominations for which the bank is constructed—such as five-cent, ten-cent, and twenty-five cent pieces—can be inserted and registered until a certain predetermined amount—say five dollars—is saved in the bank, at which time the bank can be opened for removing the accumulation.

The invention consists of a registering toy bank which comprises a registering mechanism, a movable coin-carrier, a tumbler pivoted to said coin-carrier, and means between said tumbler and registering mechanism for moving the latter according to the size of the coin inserted.

The invention consists, further, of certain details of construction and combinations of parts, which will be fully described hereinafter and finally claimed.

In the accompanying drawings, Figure 1 is a side elevation of my improved registering toy bank. Fig. 2 is a plan view of the same. Fig. 3 is a vertical central section on line 3 3, Fig. 2. Figs. 4, 5, and 6 are bottom views of the operating mechanism, showing the different positions of the same in registering and dropping a quarter of a dollar. Figs. 7 and 8 are bottom views of the operating mechanism, showing the parts, respectively, in position for registering and dropping a ten-cent piece and a five-cent piece into the bank. Fig. 9 is a bottom view of the registering-disk. Fig. 10 is a top view of the same. Fig. 11 is a detail top view of the partition-plate between the registering-disk and operating mechanism of the bank. Fig. 12 is a detail top view of the covering-plate for the registering mechanism, showing the spring for

dropping the coins after the same are registered. Fig. 13 is a top view of the coin-carrier and tumbler, and Fig. 14 is a detail view of the pawl by which the registering mechanism is operated.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A represents the body of a toy bank, said body being of any approved construction, preferably of sheet metal, and of any desired size or shape. To the top part of the same is attached the operating mechanism, which consists of an exterior casing B, to which the operative parts are applied, said casing forming the top or cover of the bank. The top part of the casing is provided with a narrow radial slot *b*, through which the figures on the registering-disk D can be read off, said disk being arranged within the casing and provided in its circumference with a circularly-arranged row of figures. When the toy bank is arranged for saving up five dollars and the coin of lowest denomination taken is a five-cent piece, there will be one hundred figures along the circumference of the registering-disk D. Any other unit may, however, be used, and the figures on the disk may go to any desired total. To the under side of the registering-disk D is applied a ratchet-wheel D', which is soldered, riveted, or otherwise attached thereto, said ratchet-wheel being provided with a number of teeth corresponding to the number of graduations on the registering-disk, so that each tooth corresponds to one of the unit subdivisions of the disk. The disk is rotated by means of a pawl *b*<sup>2</sup>, that is pivoted to the center pivot *f* of the mechanism and provided at its circumference with a spring-pawl *b*<sup>3</sup>, that engages with the teeth of the ratchet-wheel D'. The pawl is provided with a lug *d*<sup>4</sup>, which passes through a slot *b*<sup>4</sup> of a stationary partition-plate E, supported by the casing B. The plate E is provided with a recess *d*<sup>5</sup>, through which extends the free end of a releasing-spring F, attached to the bottom plate F'. The partition-plate E is attached by means of lugs and fastening-screws to the casing B and carries a spring *d*<sup>3</sup>, which engages the ratchet-wheel D' and prevents backward movement of the same. It is provided with a central



opening for the pivot-pin  $f$ , which is attached to the top plate of the attachment. The pivot-pin  $f$  passes through the partition-plate E and bottom plate F' of the attachment and supports the latter by means of a nut  $f'$ , which is screwed on the threaded end of the pivot-pin, as shown in Fig. 3.

Between the intermediate partition-plate E and bottom plate F' is arranged a recessed coin-carrier G, which is made of approximately segmental shape and provided with an operating-lug  $g$ , which projects through a circumferential slot  $b'$  of the casing B, said slot being made large enough to permit the insertion of the coins of different denominations to be saved in the bank. The coin-carrier is pivoted to the central pivot-pin  $f$  and by means of its lug  $g$  may be moved around the pivot after a coin has been inserted through the slot  $b'$  into the recess  $g'$  of the coin-carrier. The coin-carrier is provided with a flange  $h$ , which serves as an abutment for a spring  $h'$ , which is secured to and actuates a tumbler T, pivoted to the coin-carrier, and which is provided with an arc-shaped slot concentric with the pivot  $f$ , so as to pass the pivot, as shown in Fig. 13. The coin-carrier G is provided with lugs  $g^2$   $g^3$ , the lug  $g^2$  serving, when the coin-carrier is returned, to engage the lug of the pawl  $b^2$  and return the same with the spring-pawl  $b^3$  over the teeth of the registering-disk back to its normal position. The second lug  $g^3$  serves as an abutment for arresting the spring-actuated tumbler T after the same is returned by the spring  $h'$  into normal position. The middle portion of the tumbler projects into the recess  $g'$  of the coin-carrier and is pressed backward by the coin inserted through the slot  $b'$  into the casing B.

Figs. 4, 5, and 6 show three different positions of the mechanism, respectively, with a quarter in position of insertion, after insertion, and immediately before the same is dropped into the bank. These figures show the different positions of the oscillating coin-carrier and tumbler, also the releasing-spring F, which engages the coin and prevents its backward movement when the coin-carrier and tumbler are returned into their normal position. Figs. 7 and 8 show the same construction operating with a dime and nickel, respectively. The tumbler is provided at one end with wards or bits  $t'$   $t^2$   $t^3$ , which are arranged at different distances from the center pivot-pin of the attachment, one bit being so arranged as to engage the lug on the pawl  $b^2$  when a quarter is inserted, one when a dime is inserted, and a third for engaging it when a nickel is inserted. Owing to the different diameters of the coin the tumbler is oscillated to a greater or less degree on the coin-carrier, so that the bits are placed at different radii from the center. When a large coin is inserted, such as a quarter, the tumbler is moved so that the innermost ward  $t^3$  is at the same distance from the pivot  $f$  as the lug  $d^4$ .

When a dime is inserted, the outer bit  $t'$  is placed in line with the lug. When an intermediate size of coin, such as a five-cent piece, is inserted, the intermediate ward  $t^2$  is placed in line with the lug, as shown in Fig. 3. No other size of coin except those for which the bits are provided can produce proper actuation of the registering-disk. A cent can be introduced into the bank; but it will not produce proper turning of the disk, as there is no ward corresponding to its diameter. It will be dropped into the bank, however, as soon as the coin-carriers are started on their return motion.

The operation of my improved registering toy bank is as follows: A coin of one of the denominations for which the bank is constructed is inserted through the slot  $b'$  and pressed against the tumbler, so as to force the same backward against the tension of the spring  $h'$  until within the circumference of the casing. The coin-carrier is then moved by hand by its lug  $g'$  in the slot toward the opposite end of the same, thereby carrying the coin along at the inside of the casing, as shown in Figs. 5, 6, 7, and 8. When the lug arrives at the end of the slot, the coin is located opposite the recess  $f^2$  of the bottom plate F'. On the return motion of the coin-carrier and tumbler the coin is prevented by the spring F from returning and it falls through the recess into the bank. Simultaneously with the forward movement of the coin-carrier the pawl  $b^2$  is moved by the tumbler and the ratchet-wheel D' and disk D moved forward for a distance corresponding to the denomination of the coin inserted, so that the proper amount is indicated through the opening  $b$  of the casing. On the return movement the lug  $g^2$  engages the lug  $d^4$  and returns thereby the pawl  $b^2$  into its normal position, ready for again moving the disk. The parts are now ready for insertion of another coin. When the amount of five dollars or any other amount for which the registering-disk of the bank has been set is in the bank, a releasing device, with which the bank is provided and which may be of any suitable well-known construction, is called into action, so that the contents of the bank can be removed. The casing B, containing the operating mechanism, is then replaced upon the bank and a coin inserted, thereby locking the bank and placing the same in condition for further operation.

The advantages of my improved toy bank are, first, that the parts are comparatively simple and of cheap construction, all being produced by means of dies and readily assembled; second, that the registering mechanism functions in a reliable and accurate manner, so as to not alone collect and drop the coins, but also register the amounts of the same accurately; third, that the bank can be used for receiving a number of coins of different denominations and also be used for any number of coins of the same denomi-



nation, and, fourth, that coins collected in the bank can only be removed when a predetermined sum is collected in the same.

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

10 1. In a registering toy bank, the combination of a registering mechanism, a movable coin-carrier, a tumbler pivoted to said coin-carrier, and means between said tumbler and registering mechanism for moving the latter, according to the size of the coin inserted, substantially as set forth.

15 2. In a registering toy bank, the combination of a movable coin-carrier having a recess for the coin, a spring-actuated tumbler pivoted to said coin-carrier and set by the coin, wards on said tumbler, a registering-disk, and means actuated by said wards for moving said disk according to the size of the coin, substantially as set forth.

20 3. In a registering toy bank, the combination, with a registering-disk provided with a ratchet-wheel, and a pawl engaging said ratchet-wheel, of a coin-carrier provided with a recess, means for moving said coin-carrier, and a spring-actuated tumbler pivoted to said coin-carrier and provided with one or more wards varying according to the sizes of the

coins to be inserted, said wards being adapted 30 to engage the pawl of the registering-disk so as to move the same according to the size of the coin inserted, substantially as set forth.

4. In a registering toy bank, the combination of a registering-disk, means for intermit- 35 tently moving the same, a movable coin-carrier provided with a recess, a spring-actuated tumbler pivoted to said coin-carrier and provided with means for operating the moving mechanism of the registering-disk, and a bot- 40 tom plate provided with means for dropping the coin, substantially as set forth.

5. In a registering toy bank, the combination of a coin-carrier, having a recess for the coin, a tumbler pivoted to the coin-carrier, 45 means for inserting the coin into the recess of the coin-carrier, in contact with the tumbler, and a bottom plate provided with a recess for the coin and a releasing-spring for dropping the coin on the return motion of the 50 coin-carrier, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

JOHN SCHADE, JR.

Witnesses:

J. H. NILES,

M. H. WURTZEL.