

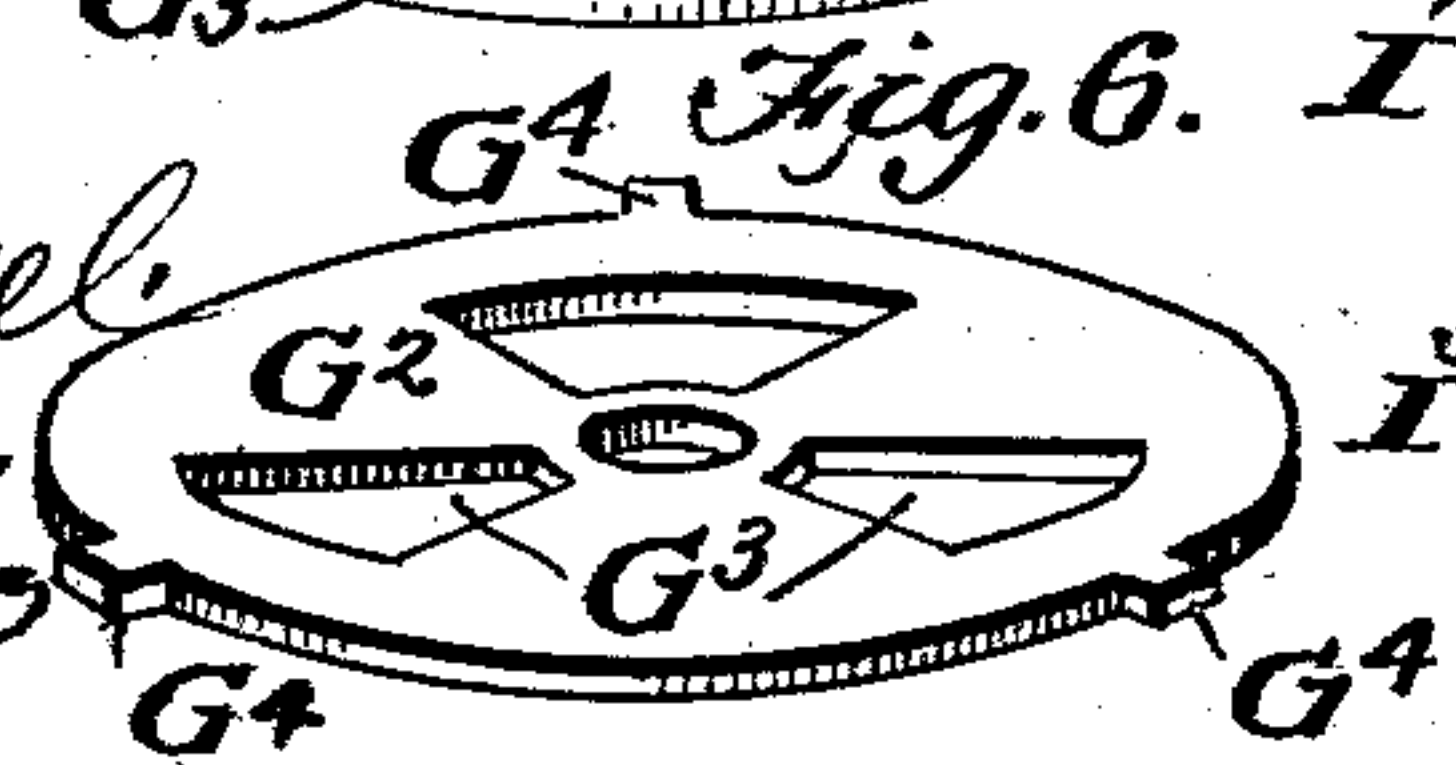
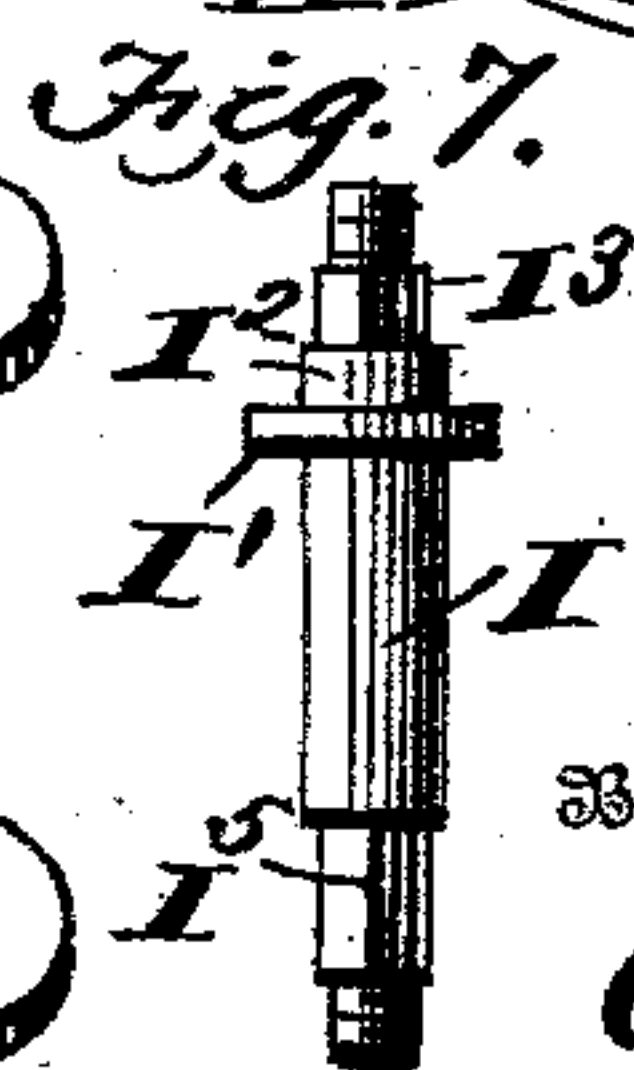
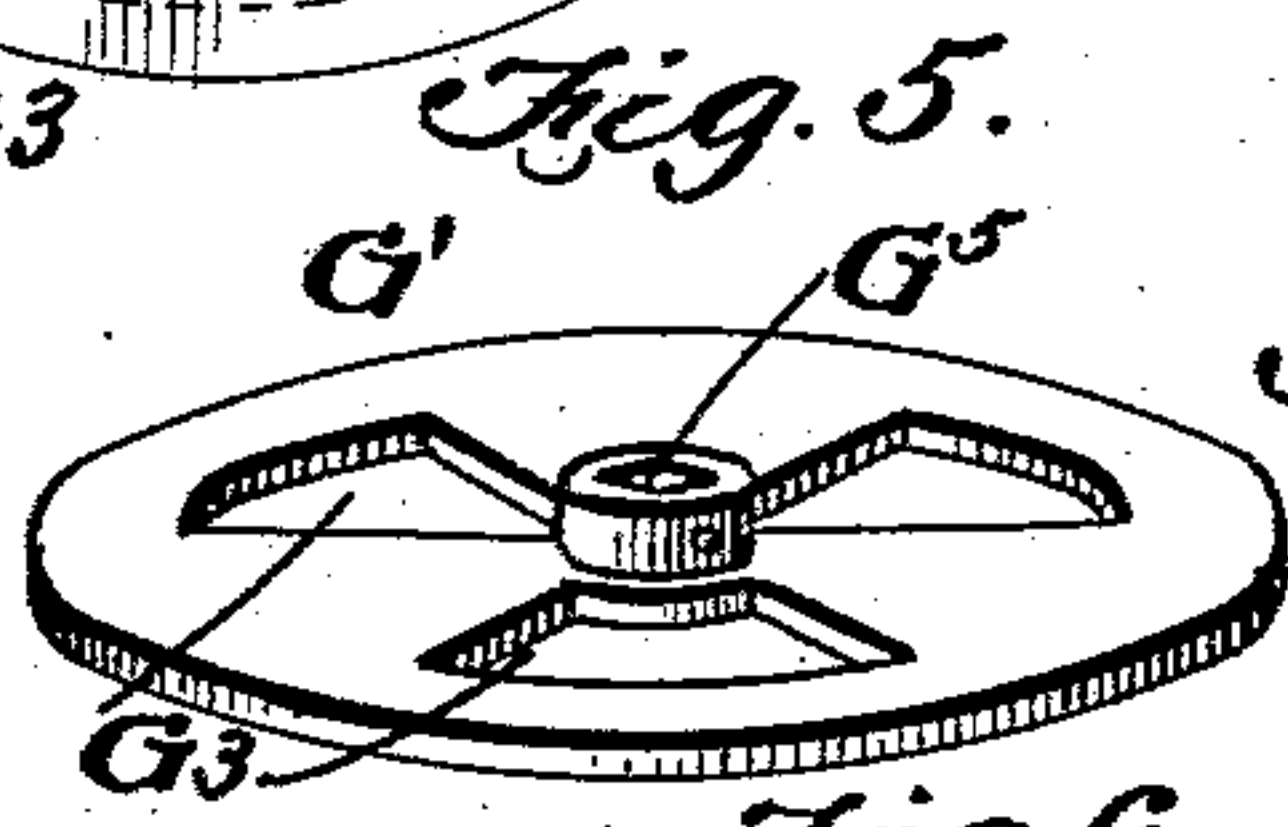
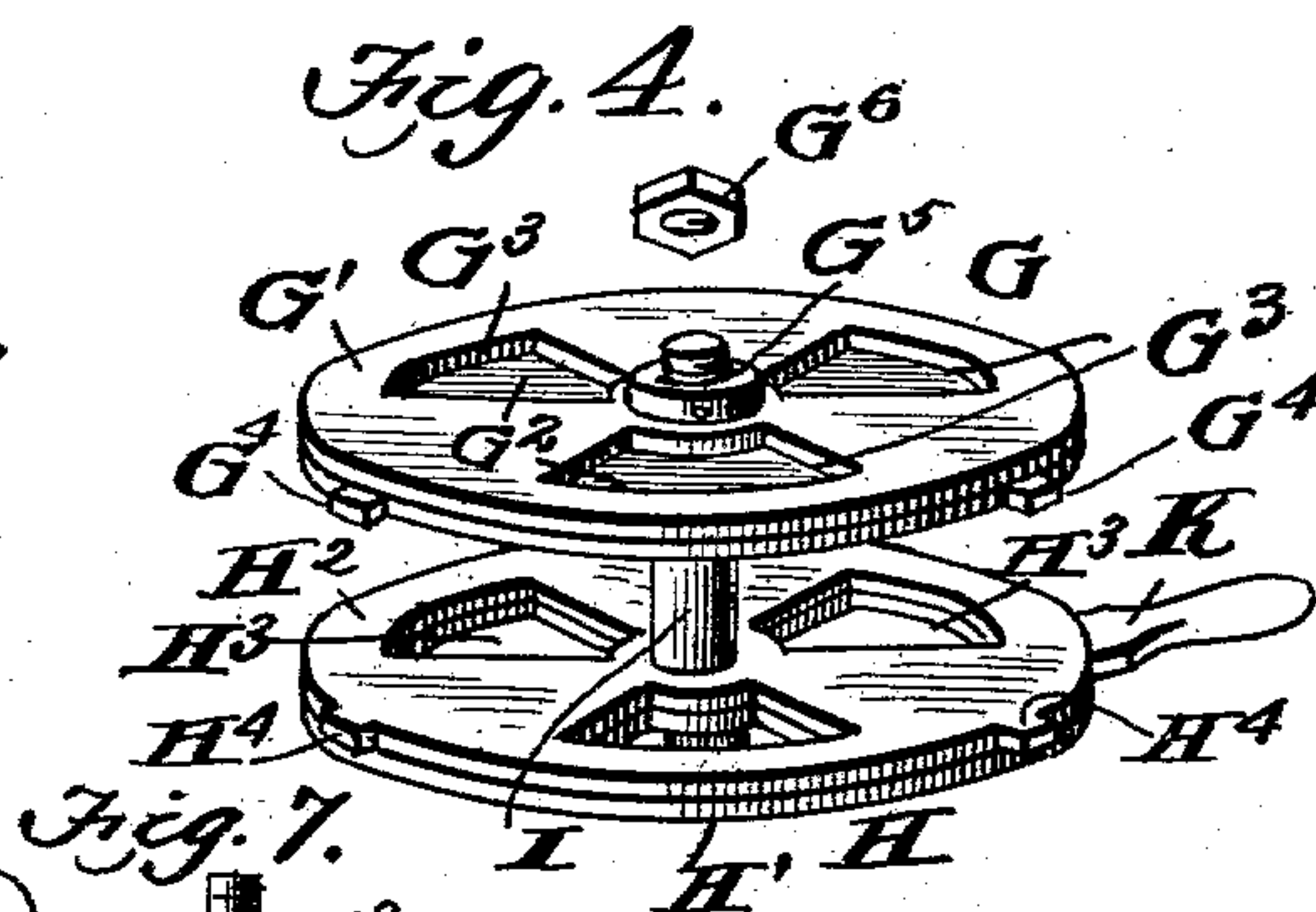
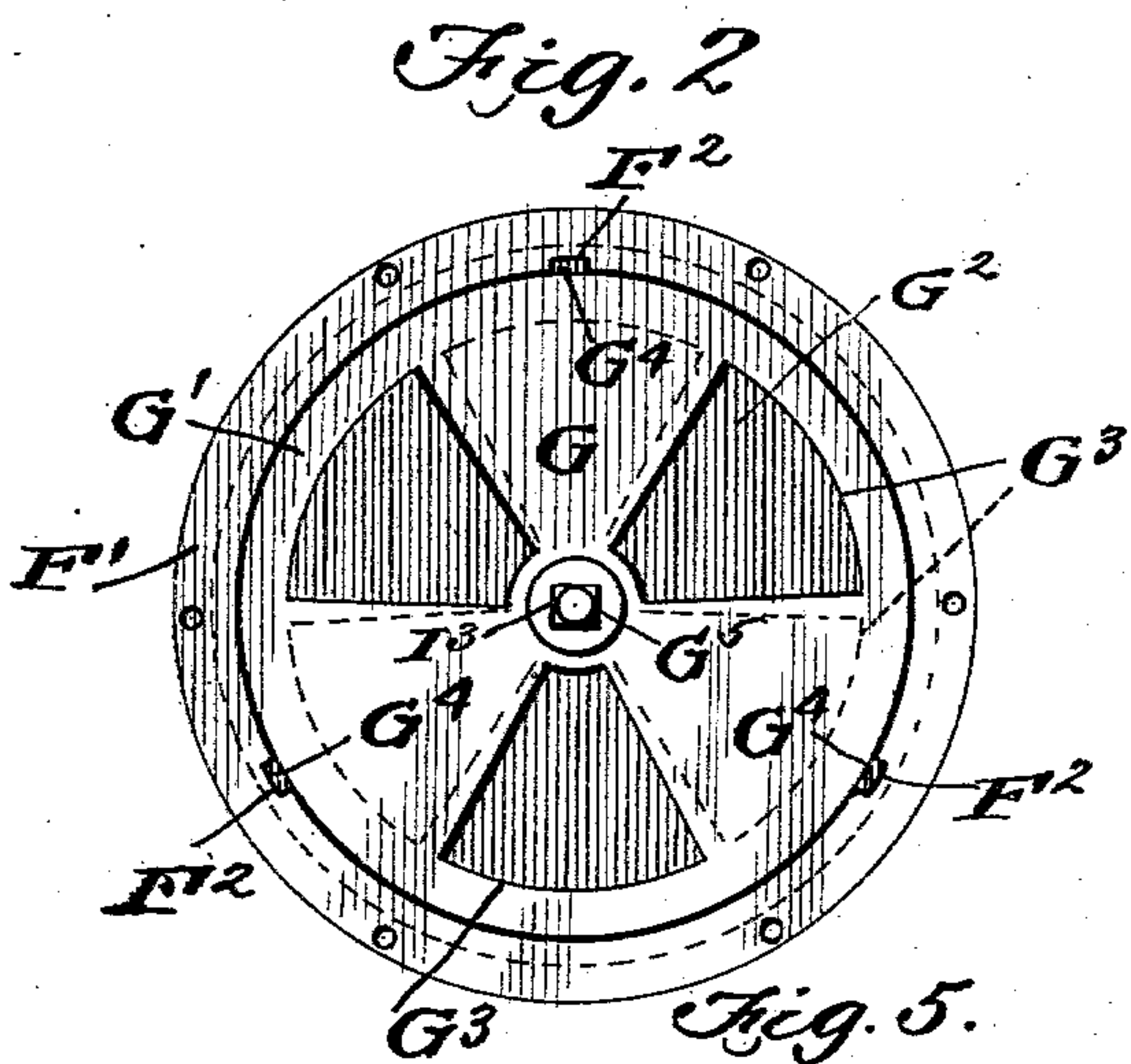
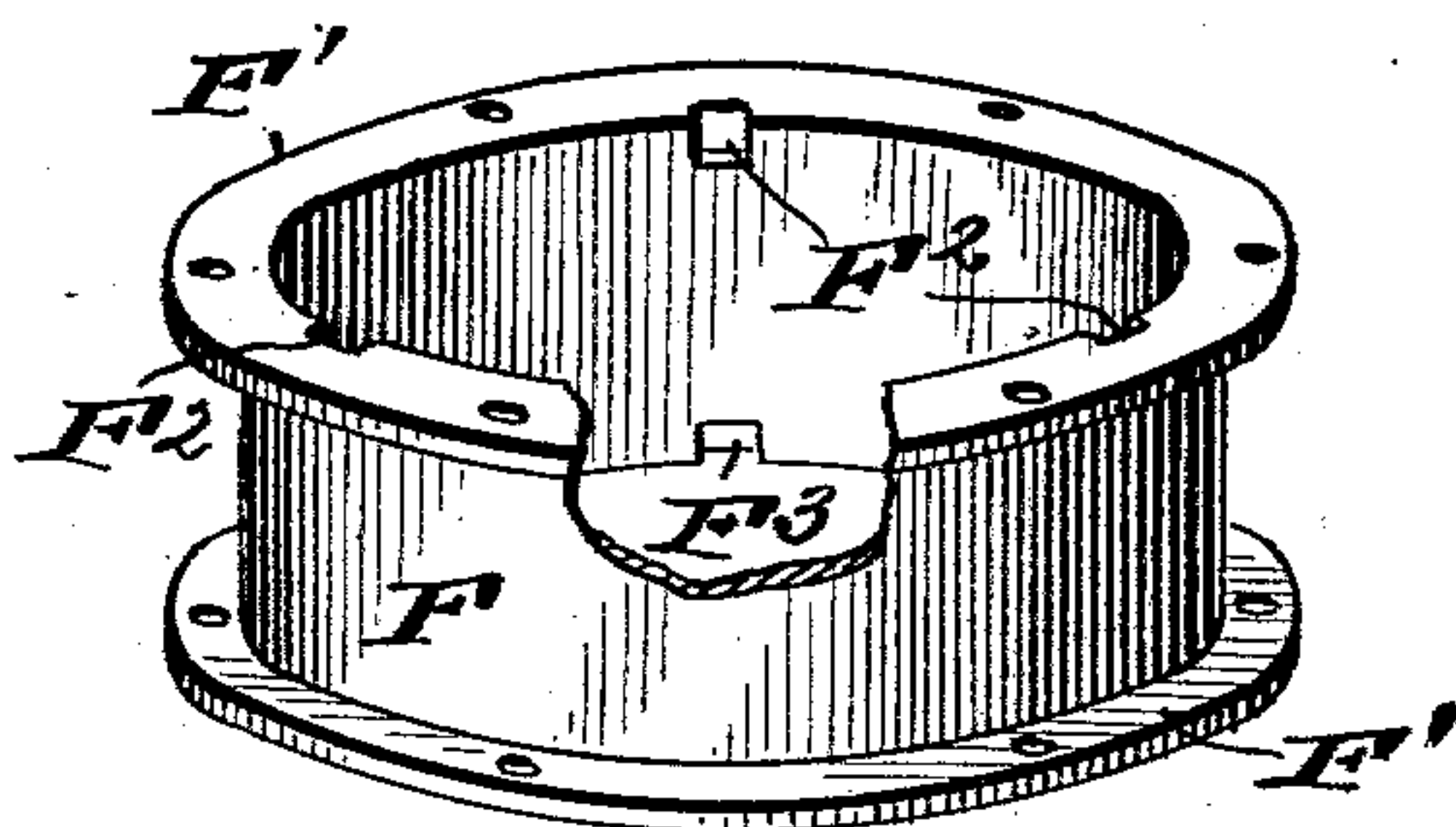
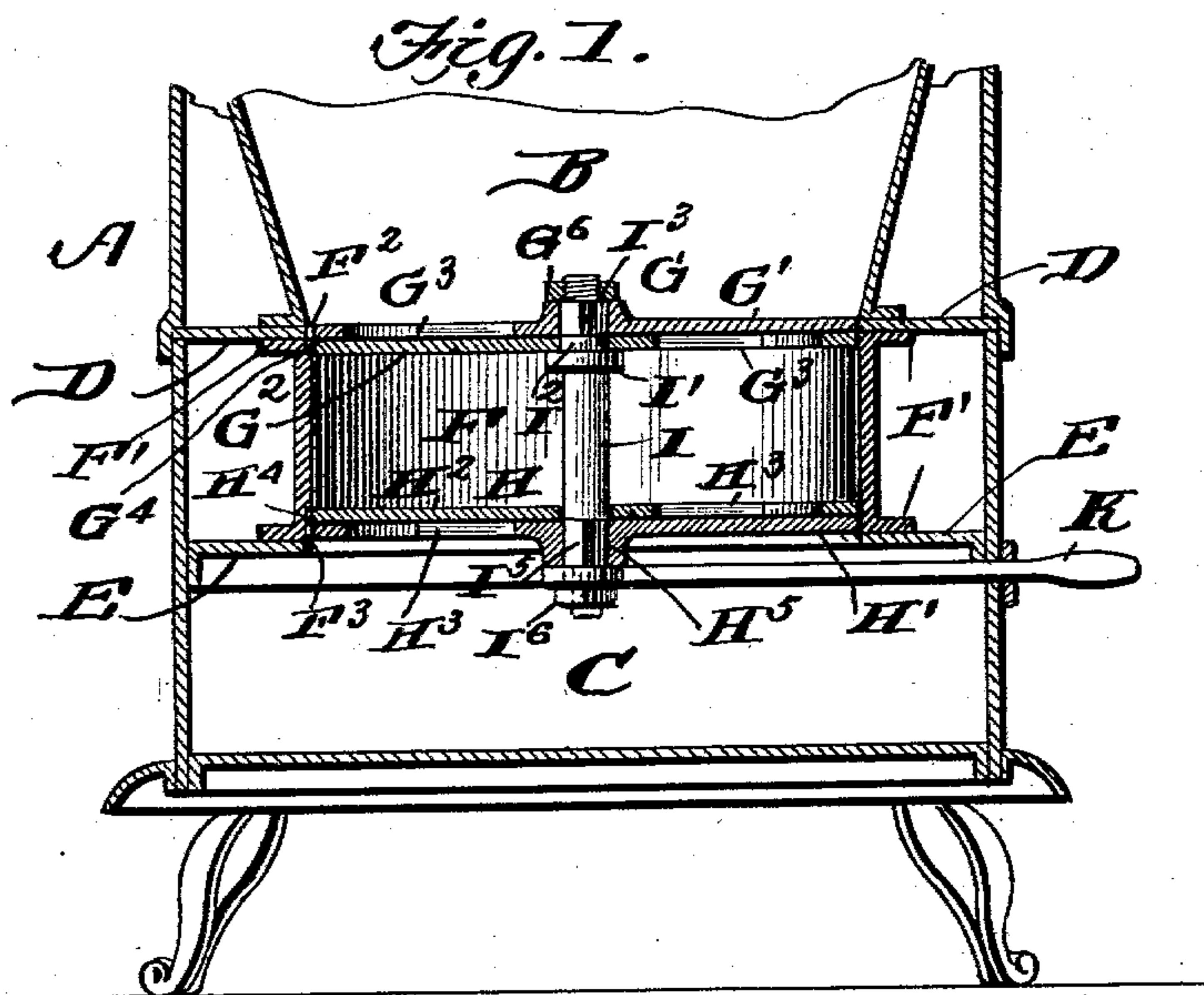
No. 744,082.

PATENTED NOV. 17, 1903.

B. J. LORE.  
STOVE GRATE.

APPLICATION FILED JAN. 31, 1903.

NO MODEL.



Inventor

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# UNITED STATES PATENT OFFICE.

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## STOVE-GRATE.

SPECIFICATION forming part of Letters Patent No. 744,082, dated November 17, 1903.

Application filed January 31, 1903. Serial No. 141,344. (No model.)

*To all whom it may concern:*

Be it known that I, RICHARD JAMES LORE, a citizen of the United States, residing at Coxville, in the county of Parke and State of Indiana, have invented a new and useful Stove-Grate, of which the following is a specification.

This invention relates generally to stoves and furnaces, and more particularly to an improved construction of grate adapted for use in connection with the ordinary cylinder or barrel stove; but it will be distinctly understood that the said grate can be used equally as well in a latrobe and also in a furnace, if so desired.

The object of the invention is to provide a simple construction of grate, which will support the coal to be burned in the fire-pot and which will hold the live coals which are shaken through the grate for a certain length of time before depositing them into the ash-chamber.

Another object is to provide a grate which can be adjusted so as to regulate the draft of air passing therethrough.

With these objects in view the invention consists in the novel features of construction, combination, and arrangement, all of which will be fully described hereinafter and pointed out in the claims.

In the drawings forming part of this specification, Figure 1 is a vertical sectional view showing the lower portion of a stove provided with a grate constructed in accordance with my invention. Fig. 2 is a top plan view of the grate. Fig. 3 is a detail perspective view of the cylinder, in which the grate is arranged. Fig. 4 is a detail perspective view illustrating the upper and lower sections of the grate. Figs. 5, 6, and 7 show details of construction.

Referring to the drawings, A indicates the shell of an ordinary stove, B the fire-pot, and C the ash-chamber. The fire-pot B rests upon a ring or flange D, and a short distance below the said ring or flange is a second ring or flange E, and bolted to the flanges D and E and arranged between the same is a cylinder F, having an outwardly-projecting flange F' at its upper and lower ends, by means of which the said cylinder is securely bolted to the said rings or flanges D and E. This cyl-

inder F may be made any length desired, according to the construction of the stove within which it is to be arranged. This cylinder F is intended to carry the grate, which comprises the upper section G and the lower section H, which are connected by means of a shaft I and are operated by means of a hand-lever K, rigidly connected to the lower end of the shaft I and having its outer end projecting through a horizontal slot produced in the shell of the stove. The upper section of the grate comprises two plates G' and G<sup>2</sup>, and the lower section consists also of two plates H' and H<sup>2</sup>. The plates G' and G<sup>2</sup> have openings G<sup>3</sup> produced therein, and the plates H' and H<sup>2</sup> have openings H<sup>3</sup> produced therein. The plate G<sup>2</sup> has projections G<sup>4</sup>, which are adapted to fit into recesses F<sup>2</sup>, produced in the cylinder F, adjacent to the upper end thereof, and the plate H' is also provided with projections H<sup>4</sup>, which are adapted to fit into recesses F<sup>3</sup>, produced in the sides of the cylinder adjacent to the lower end. The shaft I is formed with a collar I' adjacent to the upper end, and directly above the said collar is the round portion I<sup>2</sup>, and above that the square portion I<sup>3</sup>. The plate G<sup>2</sup>, having a central circular opening, is fitted upon the shaft so that the round portion I<sup>2</sup> will occupy the central circular opening of the said plate, and the plate G' has a square central opening G<sup>5</sup>, which fits upon the square portion I<sup>3</sup> of the shaft I, and a nut G<sup>6</sup> is screwed upon the reduced threaded end of the shaft for the purpose of securely fastening the parts together. The plate H' has a central circular opening which fits on the circular portion of the shaft I, and the plate H<sup>2</sup> has a central square opening H<sup>5</sup>, which fits upon the square portion I<sup>5</sup> of the shaft, and the inner end of the operating-lever K is also fastened upon said square portion and a nut I<sup>6</sup> employed to secure said parts together. The plates G and G' and H and H' are so arranged with reference to each other that when the openings of one pair of plates are brought into register the openings of the other pair of plates are thrown out of register. Thus if the hand-lever is drawn so as to bring the openings G<sup>3</sup> of the plates G and G' into register the openings of the plates H and H' will be thrown out of register. By



means of this construction when it is desired to dump a portion of the live coals from the fire-pot the hand-lever is turned around so as to open the openings in the top section of the grate and close the openings in the lower section, and in this way the live coals so dumped will be held within the grate any desired length of time before being finally dumped into the ash-chamber C. Furthermore, by turning the hand-lever so as to open one set of openings and partially close another set of openings the desired amount of draft passing through the grate can be regulated to a nicety. It will also be noted that the plates of each pair are arranged close together, so as to prevent ashes or live coals getting between said plates and interfering with the movement thereof, and inasmuch as one plate of each pair is held stationary the manipulation of the grate is rendered much easier.

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

1. A stove-grate comprising a cylinder, a stationary plate, having openings therein, arranged at each end of the cylinder, a movable plate having openings arranged adjacent each stationary plate, the openings in each movable plate being adapted to register with those of the adjacent stationary plate and a

lever adapted to actuate the movable plates simultaneously.

2. A stove-grate comprising a cylinder adapted to be arranged in a stove or furnace, said cylinder having a grate-section at each end thereof, each grate-section consisting of two plates arranged close together, each plate having a plurality of openings produced therein, a shaft for connecting the movable plates and means for turning said movable plates so as to bring the openings into and out of register, as specified.

3. A stove-grate comprising a cylinder, having recesses at its upper and lower end, of plates having openings produced therein, said plates being arranged in pairs, one plate of each pair having projections adapted to fit into the recesses produced in the cylinder, a shaft arranged centrally of the said plates, one plate of each pair being rigidly connected to the said shaft, and the operating-lever connected also to the shaft whereby the plates rigid with the shaft can be turned for the purpose of bringing the openings in the plates into and out of register.

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