

C. L. RIDGWAY.

HEATING STOVE OR FURNACE.

No. 318,295.

Patented May 19, 1885.

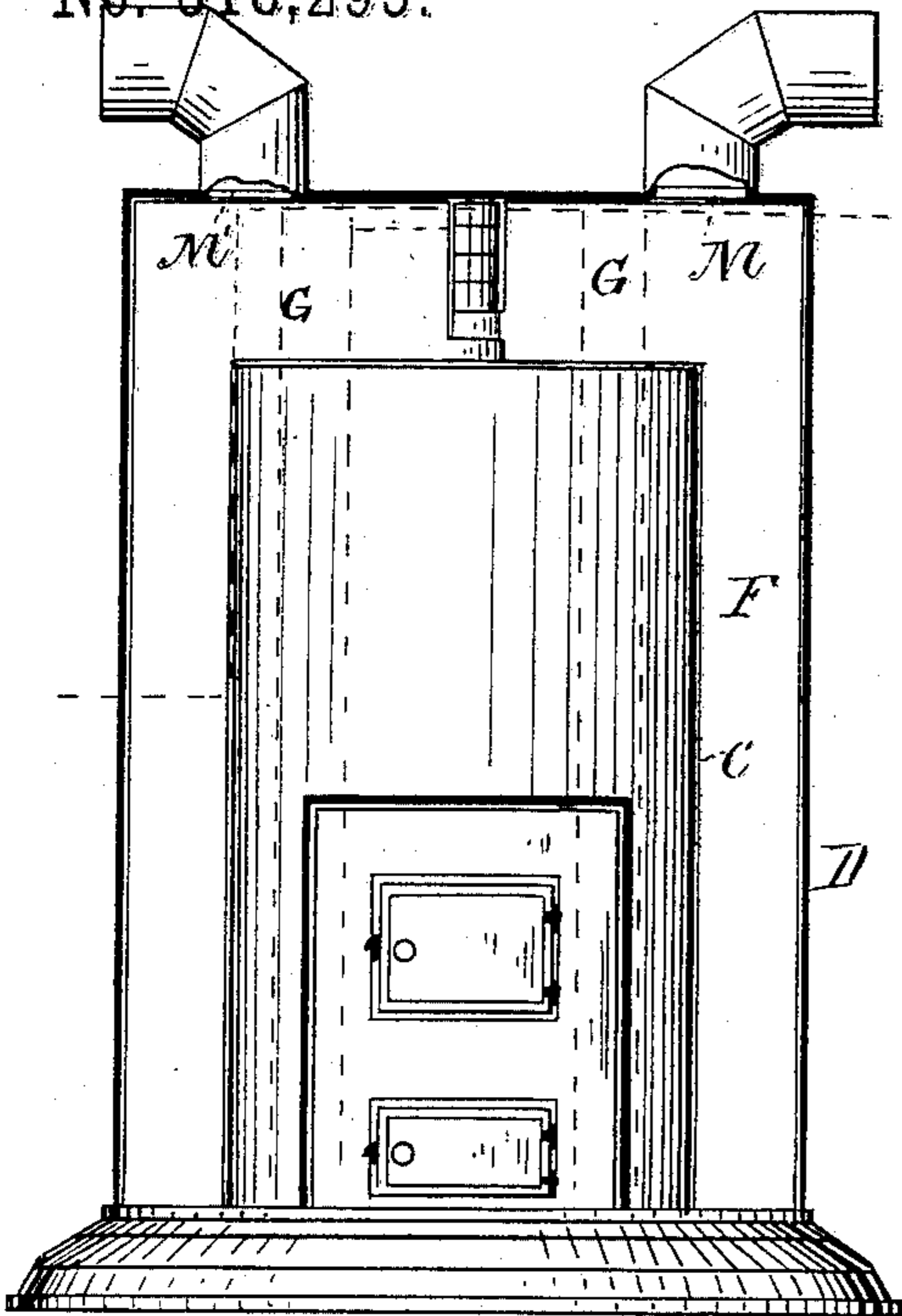


Fig. 1-

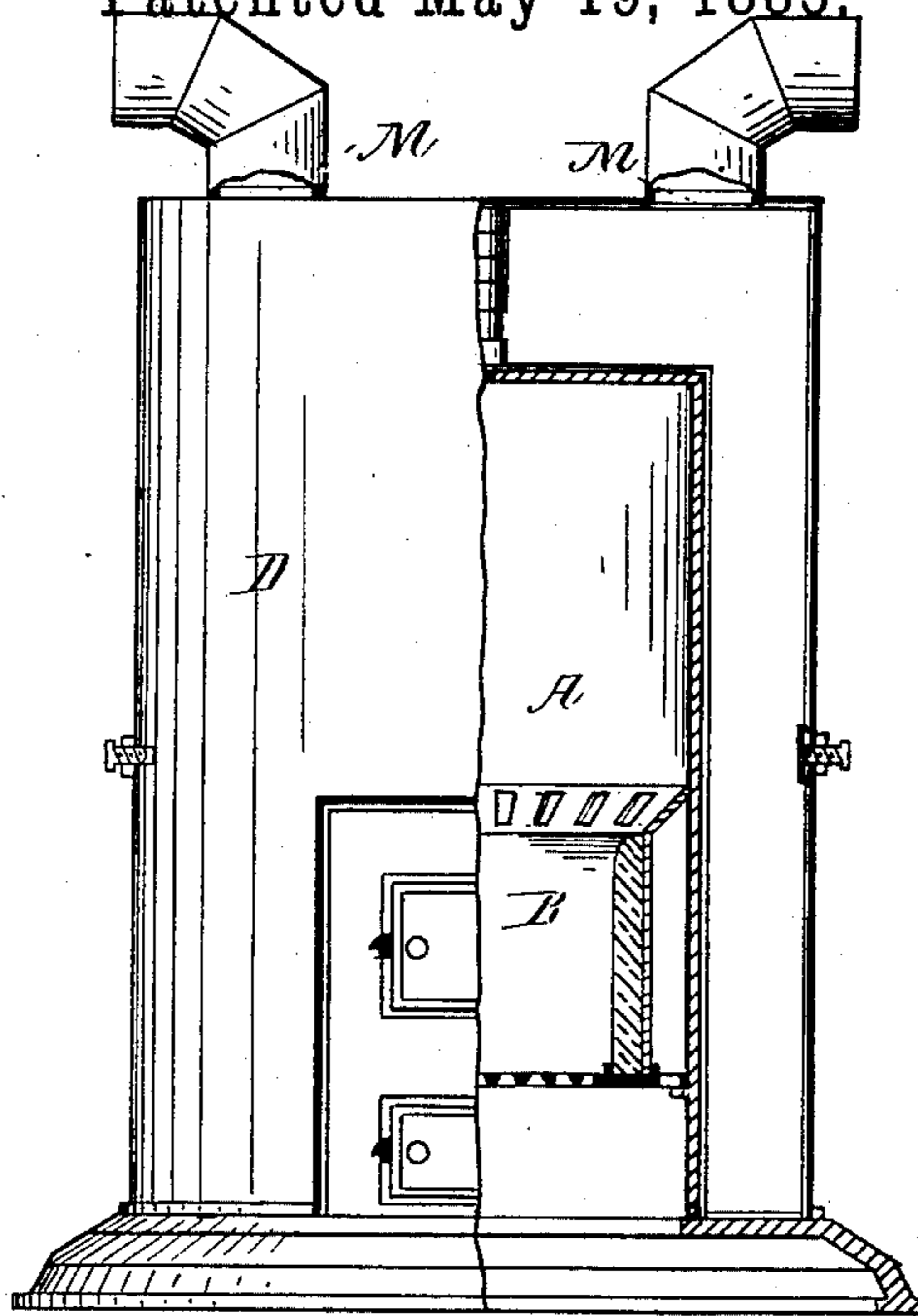
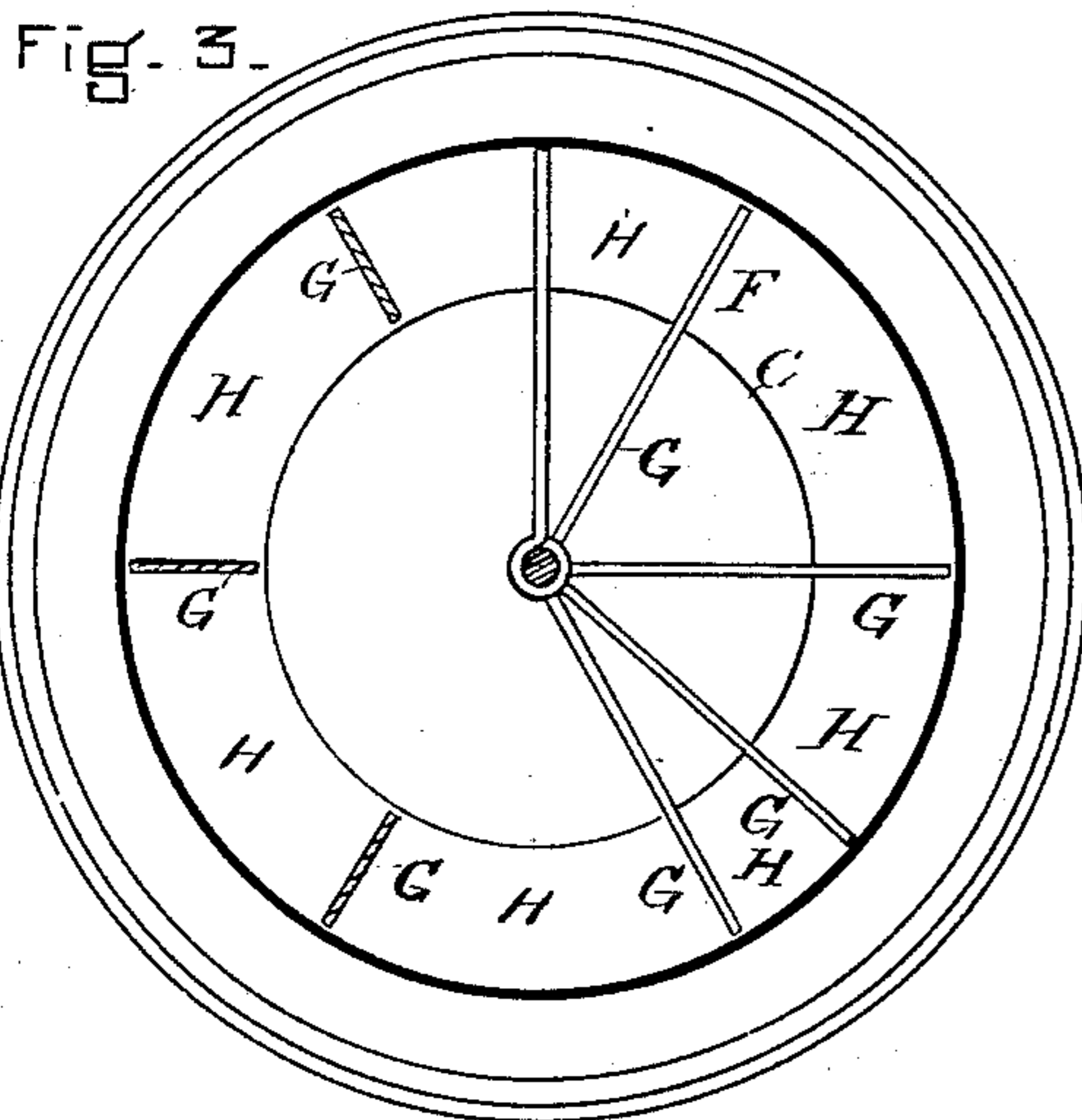
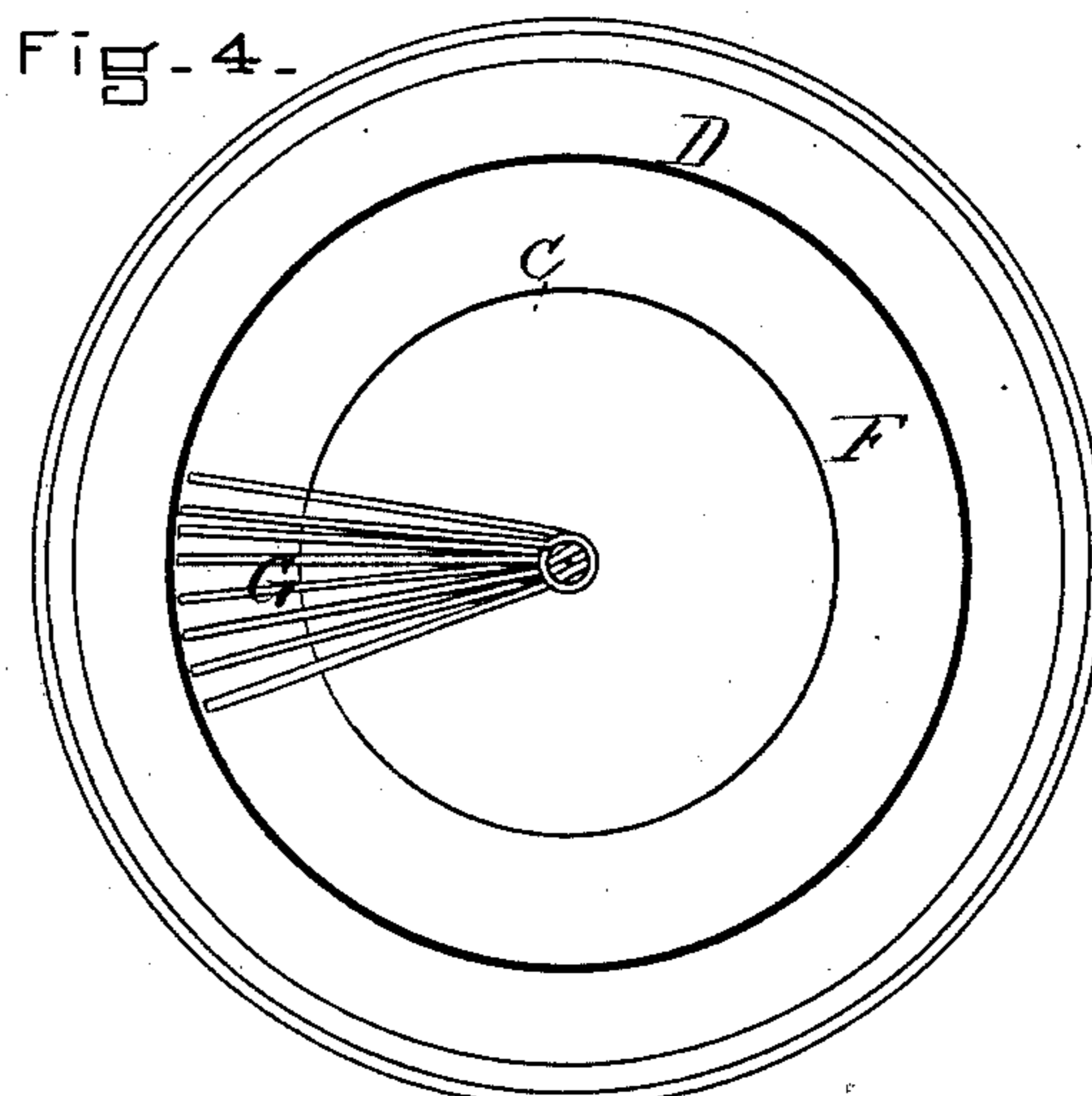


Fig. 2-



WITNESSES

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INVENTOR

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by his atty
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(No Model.)

2 Sheets—Sheet 2.

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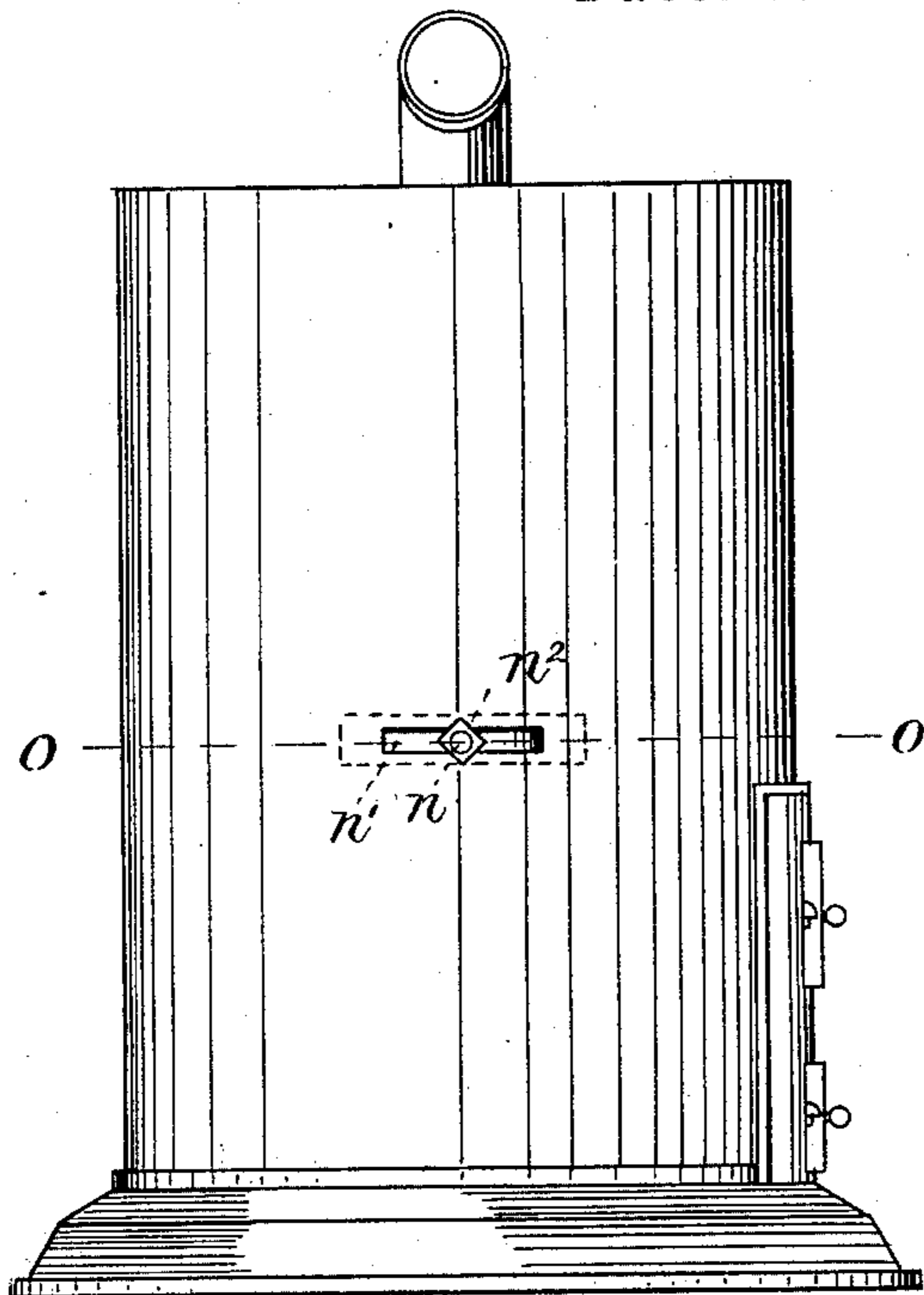


Fig. 5.

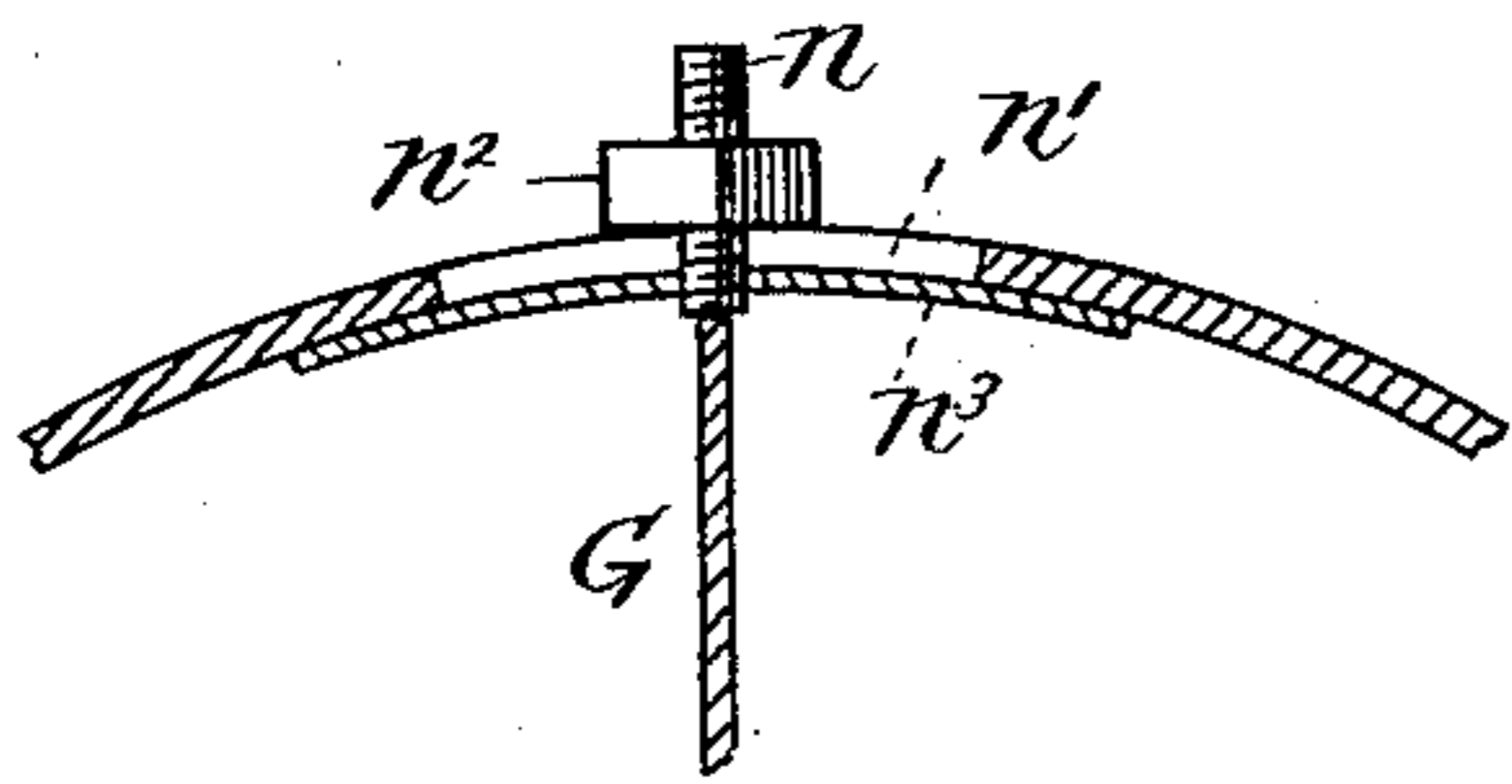


Fig. 7.

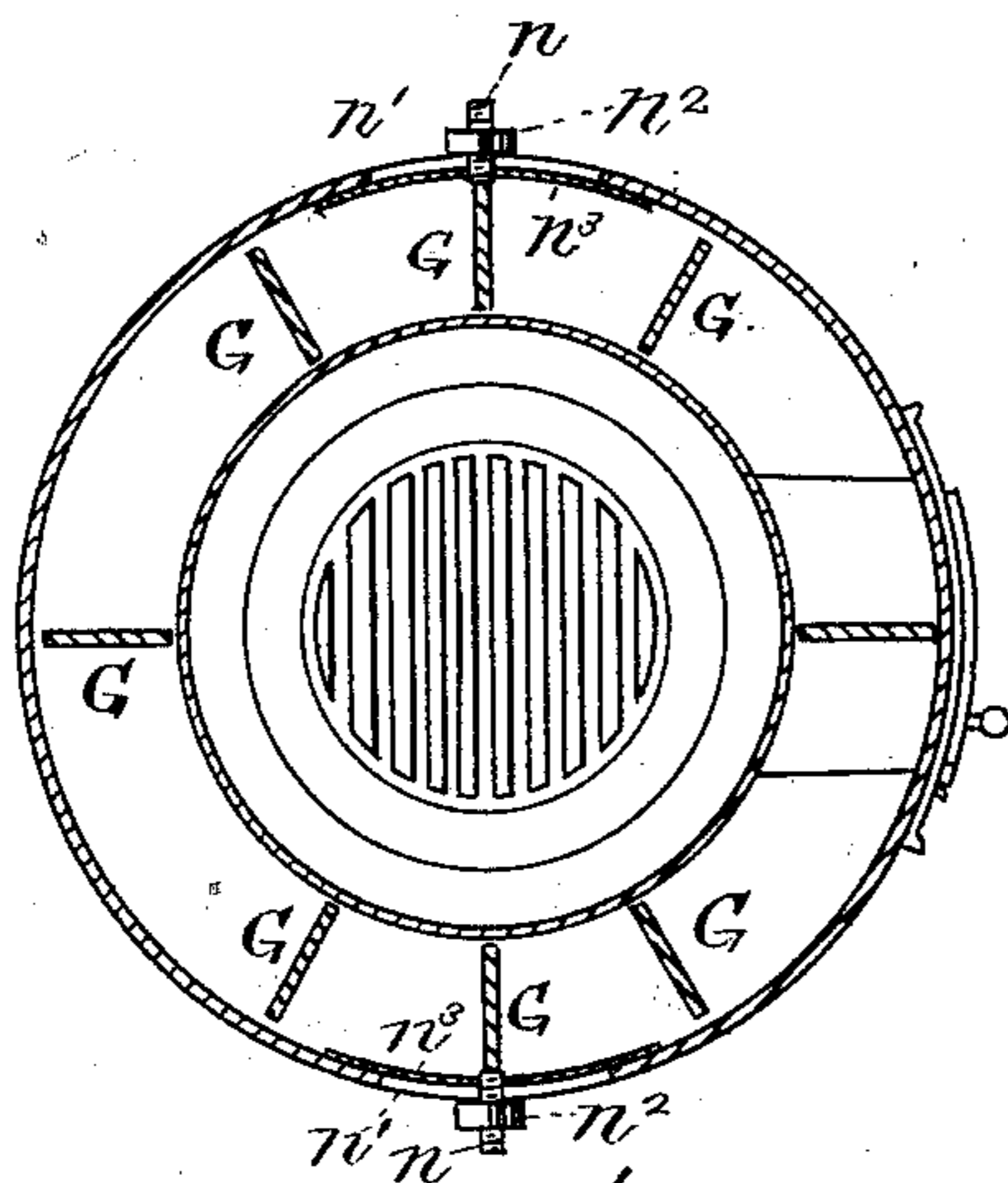


Fig. 6.

WITNESSES.

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UNITED STATES PATENT OFFICE.

CHARLES L. RIDGWAY, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO THE
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HEATING STOVE OR FURNACE.

SPECIFICATION forming part of Letters Patent No. 318,295, dated May 19, 1885.

Application filed October 13, 1883. (No model.)

To all whom it may concern:

Be it known that I, CHARLES L. RIDGWAY, of Boston, in the county of Suffolk and State of Massachusetts, a citizen of the United States, have invented a certain new and useful Improvement in Heating Stoves and Furnaces, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification in explaining its nature, in which—

Figure 1 is a front elevation of a furnace containing my invention. Fig. 2 is also a front elevation thereof with a portion broken out to show the interior construction. Fig. 3 is a view, part in plan, with the top of the furnace removed, and part in horizontal section. Fig. 4 is a view in plan of the interior of the furnace with the top removed, further showing my invention. Fig. 5 is a side elevation showing one manner of adjusting and locking the movable plates hereinafter referred to. Fig. 6 is a horizontal section upon the line *o o* of Fig. 5. Fig. 7 is a detail view enlarged upon the same section.

This invention consists in a heating stove or furnace having a hot-air space or chamber and outer shell divided into sections by means of partitions which are movable in relation to each other, as hereinafter described.

Referring to the drawings, A represents the combustion-chamber of an ordinary furnace; B, the fire-pot; C, the shell surrounding the combustion-chamber and fire-pot; D, the outer casing of the furnace; E, the heating-chamber; G, the partition-plates. These partition-plates are hinged to the pivot *g*, and can be moved thereon so as to be swung into any desired position in the heating-chamber, and the heating-chamber can thus be divided into sections H, which may be enlarged or decreased in size, as may be desired, by simply moving the partitions in relation to each other.

M represents the openings through which the hot air escapes from the heating-chamber into the conducting-pipes. These openings are surrounded by collars in the usual way. The hot-air chamber is supplied with cold air in the usual manner.

The device can of course be applied to a heating-drum within the combustion-chamber, or to any other heating-chamber in a stove, furnace, or heater without departing from the spirit of the invention.

By making the partitions movable, as herein described, the furnace can be set up or located to connect with various rooms by connecting-pipes before the heating-chamber is divided by the partition-plates into the various sections; and it is obvious that this is a great advantage over any form of construction which renders it necessary to divide the heating-chamber into sections by permanent partitions, as that would have to be done before the furnace was sent out from the shop, and each furnace or stove would have to be constructed to order, or at least the portion which relates to the division of the heating-chamber into sections, and after once constructing, the size of these chambers could not readily be changed, whereas with my improvement the furnace is always provided with means for dividing the heating-chamber into sections, which, however, need not be used until the furnace is set up.

Any desirable means may be used for fastening these partition-plates in place after they have been moved to divide the chamber into sections, and I have represented in Fig. 2 one form, which consists of the screw *n*, extending outwardly from the edge of the plate through the slot *n'* in the outer casing, and the nut *n''*. This slot is covered by a wing, *n'''*, which extends in both directions from the partition-plate and covers the slot. This screw-spindle can also be used as an arm or handle in moving the plate, and when it has been properly located the screw is set up against the furnace-casing, locking the plate in place.

I am aware of Patent No. 256,345, granted James H. McIntosh, for heater; but as it is not for a heating stove or furnace, and as it does not describe heating-chambers which can be enlarged or contracted at will, I consider that the patent does not contain the essential features of my invention.

I am also aware of the Patent No. 55,564, granted Edward Webster, dated June 12, 1866, for hot-air furnace, which describes the heat-

ing-chamber of the furnace divided into several compartments by fixed division-plates, in which plates are arranged dampers for connecting the various compartments; but I consider that this is not the essential feature of my invention.

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

10 1. In a heating stove or furnace, the combination of the shells C D, forming the chamber F, with a series of adjustable plates, G, for dividing the said chamber into sections, all substantially as and for the purposes described.

15 2. The combination, in a heating stove or furnace, of a heating-chamber, F, and one or more

movable partition-plates, G, for dividing the said chamber into sections, and means for moving said partition plate or plates from without the furnace, all substantially as and for the 20 purposes described.

3. The combination, in a heating stove or furnace, of the air-heating chamber F, one or more movable partition-plates for dividing said chamber into sections, and means for locking 25 said movable plates in any given position, all substantially as and for the purposes described.

CHARLES L. RIDGWAY.

Witnesses:

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