

C. McINTOSH.

Lantern.

No. 20,573.

Patented June 15, 1858.

Fig. 1.

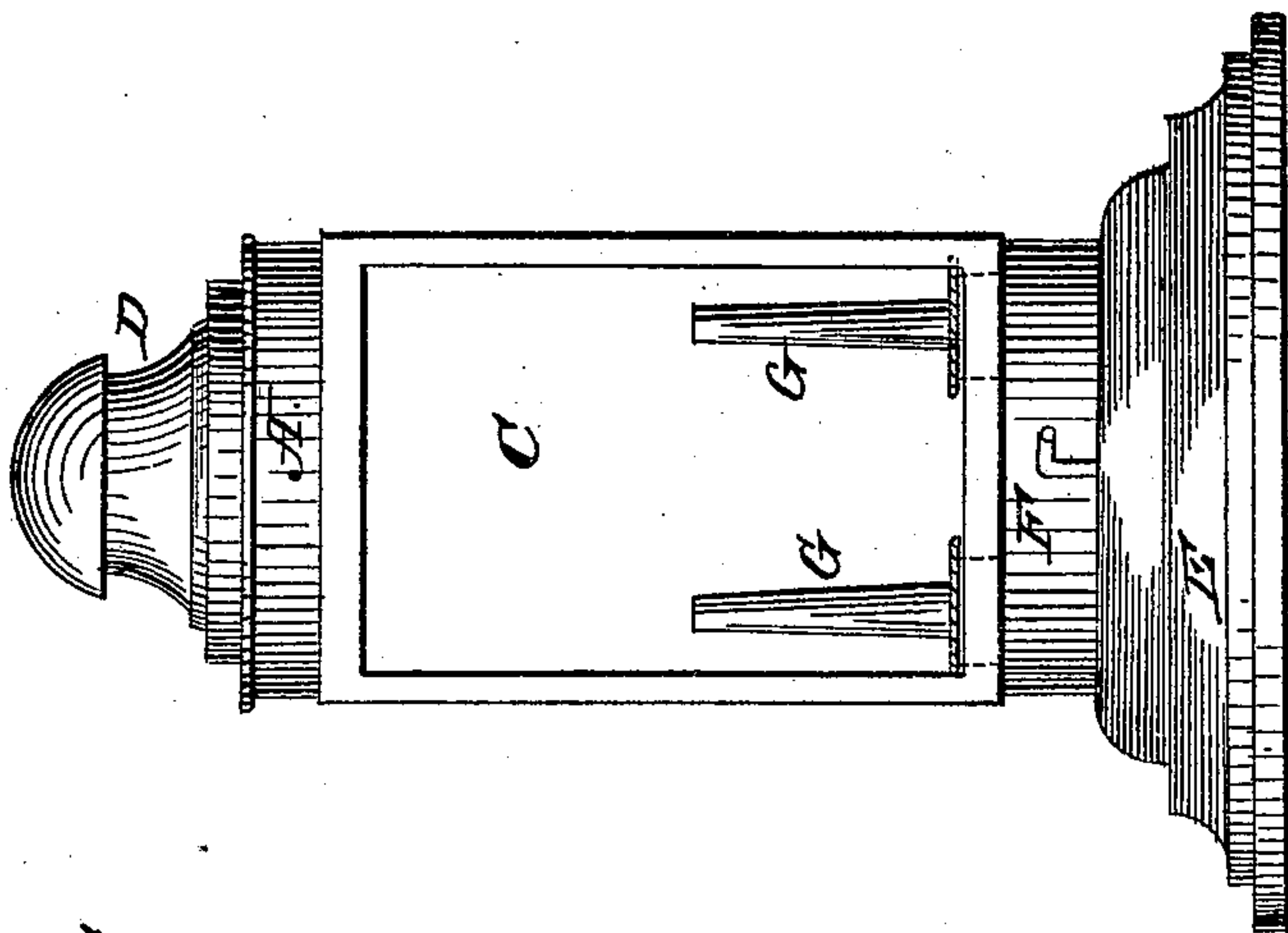


Fig. 3.

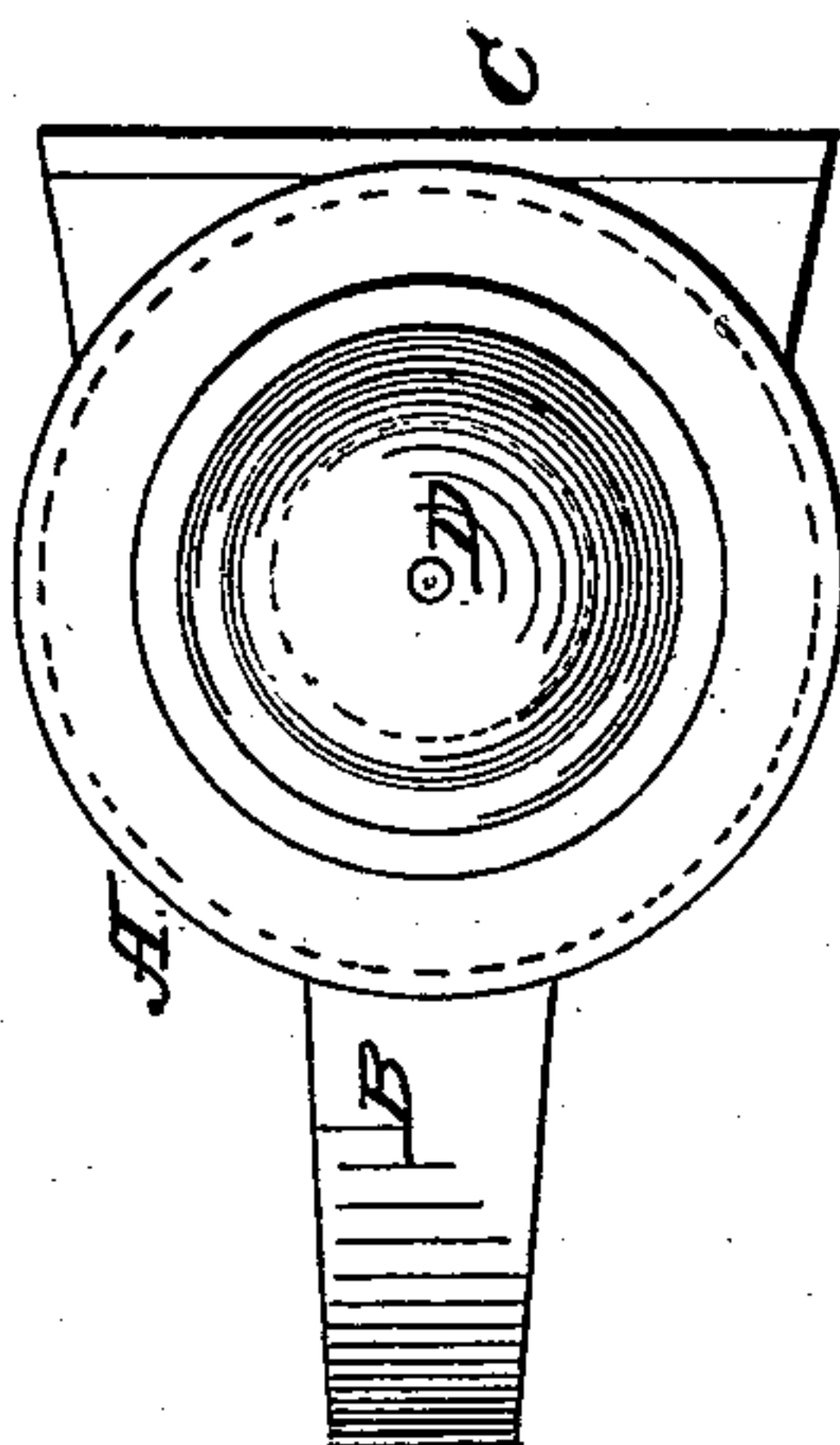


Fig. 2.

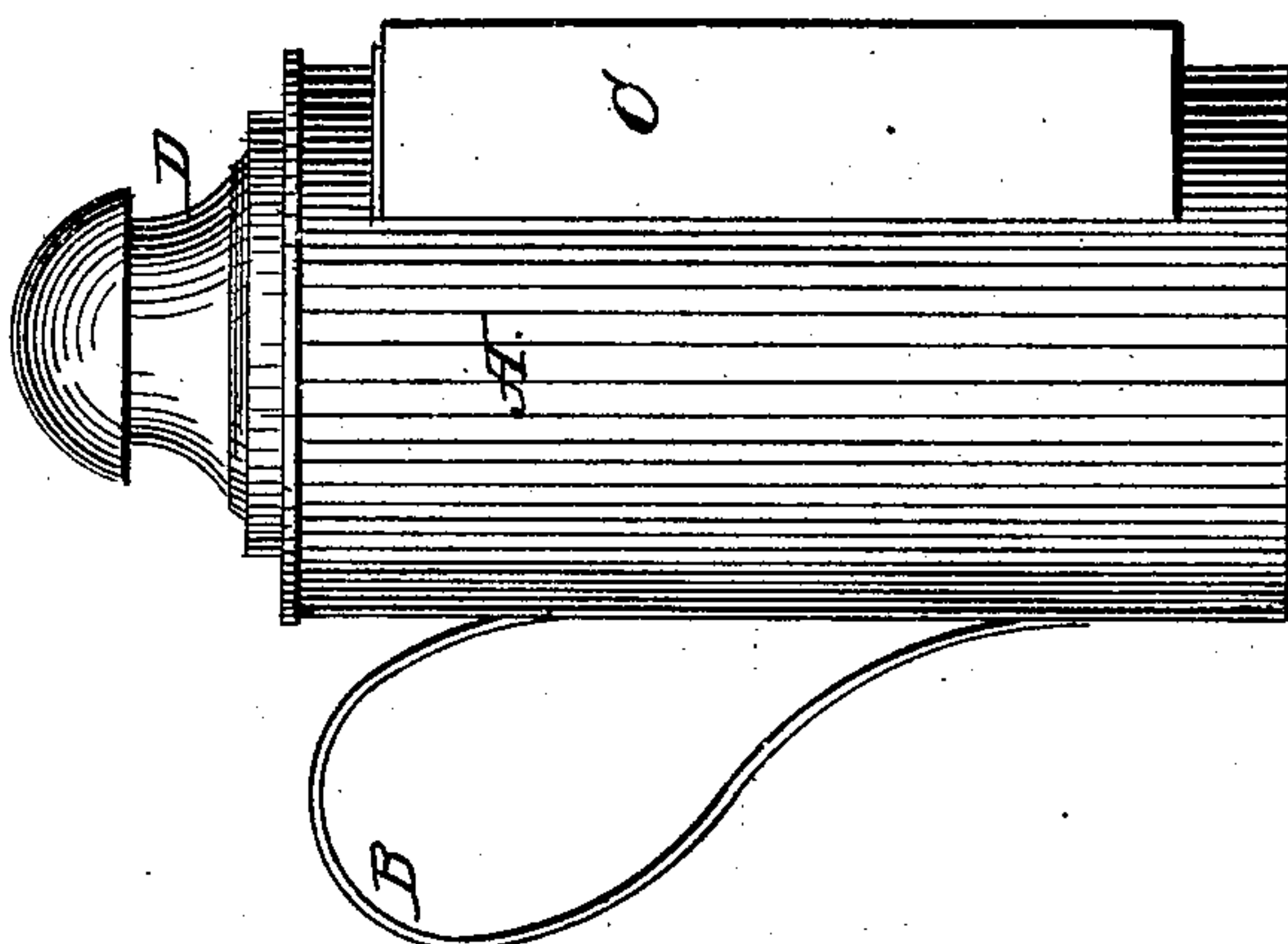


Fig. 5.

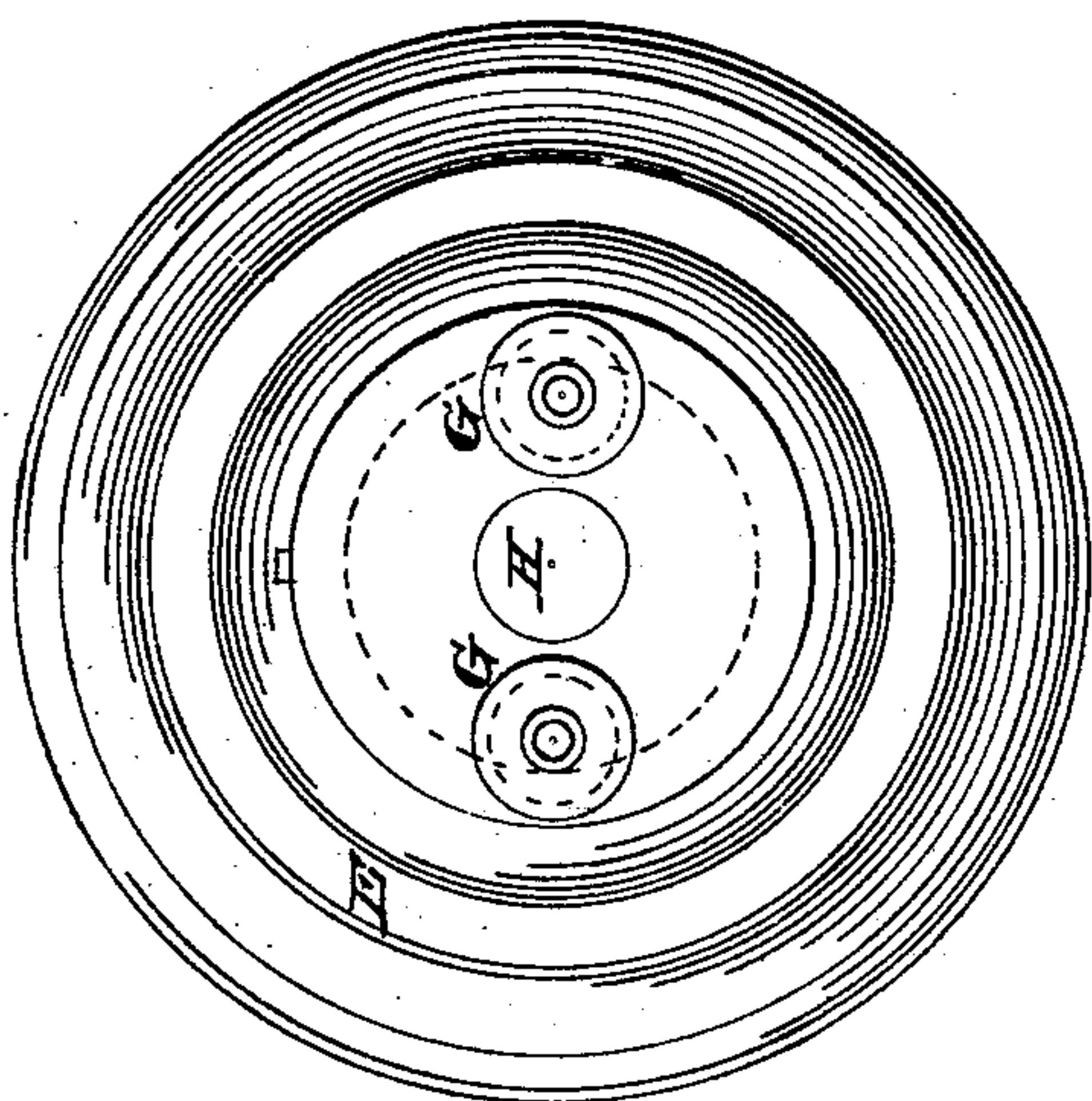
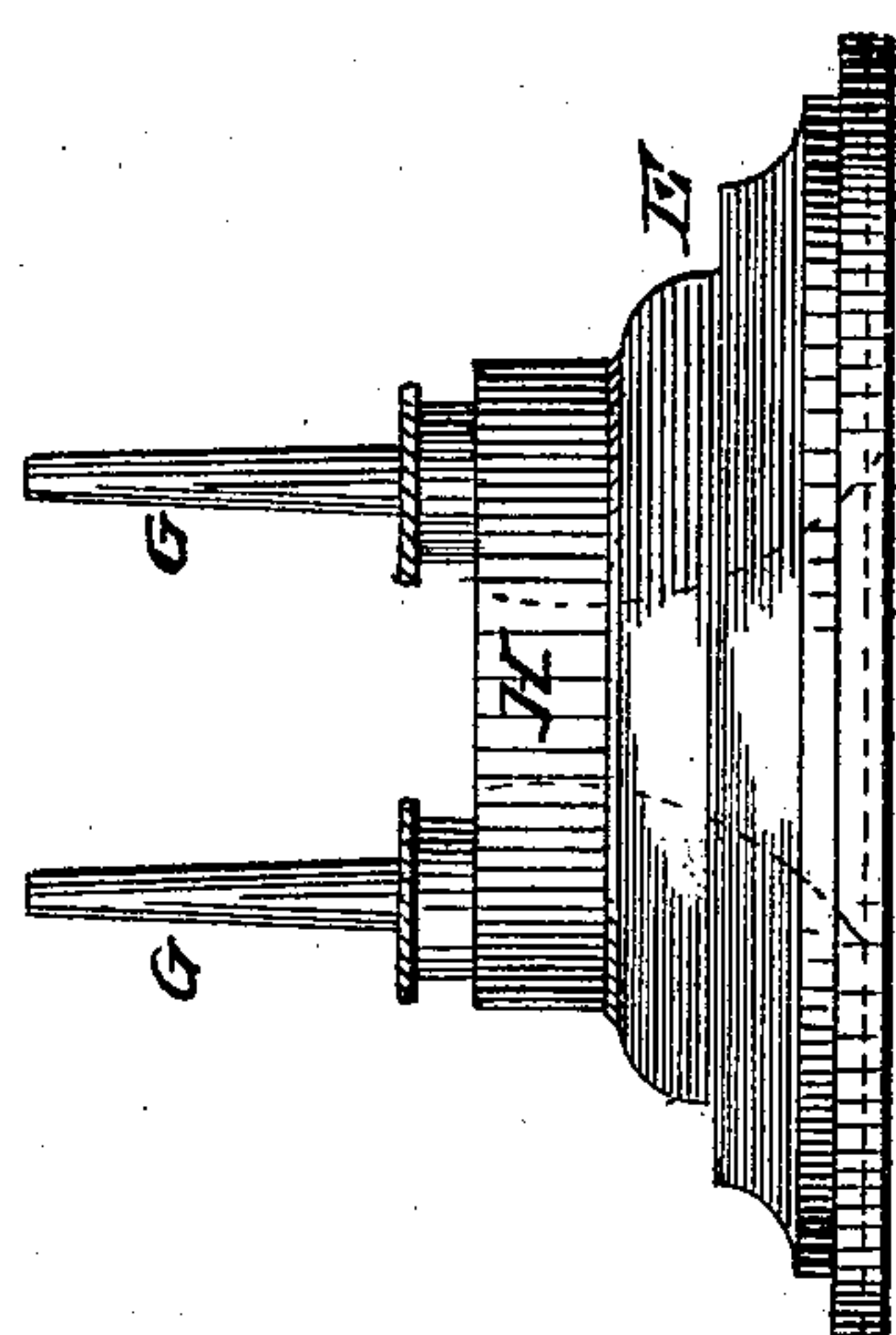


Fig. 4.





# UNITED STATES PATENT OFFICE.

C. MCINTOSH, OF JERSEY CITY, NEW JERSEY.

## LAMP FOR LIGHTING GAS.

Specification of Letters Patent No. 20,573, dated June 15, 1858.

*To all whom it may concern:*

Be it known that I, CHARLES MCINTOSH, of Jersey City, in the county of Hudson and State of New Jersey, have invented a new and useful Improvement in Lamps for Lighting Gas; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification.

Figure 1, is a front elevation of the front part of a lantern with the improved bottom or base attached. Fig. 2, is a side elevation of the upper portion of ditto. Fig. 3, is a top view of ditto. Fig. 4, is a side elevation of the improved bottom or base detached. Fig. 5, is a top view of ditto.

Similar letters in the figures represent corresponding parts.

The nature of my invention consists in constructing the lamp itself with a vertical or nearly vertical passage through it; said passage being in close relation to the wick tube or tubes so that a stream of gas issuing through it shall be caused to come in so close contact with the flame of the same as to be instantly ignited. By this arrangement of passage through the lamp the ordinary construction of lamp and lantern can be employed, and arranged in the usual manner, without any change being required in their shape and construction other than the formation of the passage for the admission of the gas burner and flow of the gas to the flame of the wick tubes. Whereas with the devices at present in use the lamp has to be particularly adapted for use in connection with a gas lighting lantern, and also has to be arranged on one side of the lantern in such a manner as to preclude the use of the most approved combined self acting lamps and lanterns.

To enable others skilled in the art to make and use my invention I will proceed to describe its construction and operation.

The upper portion A, of the lantern is provided with a handle B, glass front C, and chimney D, for producing the necessary draft, and may be made in the usual or most approved manner. The base E, may be secured to the upper portion by pins passing through right angled grooves F, or any other

manner that will admit of its quick detachment and re-attachment, and is provided with one or more wick tubes G, on either side of its center. Beside the wick tube or tubes and in the center and bottom of the lantern is formed a tapered opening or passage-way H, flaring outward as it approaches the bottom of the reservoir or base, after the manner of a trumpet, and reduced at its upper end to such a degree as to concentrate the current of air or gas drawn through the opening or passage way H, by the flames of the wick tubes G, whose combustion is supplied by the air thus furnished.

When it is desired to ignite the gas-jet from a burner the lantern is brought over the same after the supply cock has been turned on, which causes the gas to be drawn upward through the flared opening or passage way H, with the current of air that is constantly passing through, and to be concentrated at the upper smaller end and delivered therefrom beside the flame in a thin stream, and in such proximity to the same, as to cause it to be ignited, and this ignition to be instantaneously communicated to the portion at the outlet of the burner. In this manner a burner can be lighted at a distance of several inches from the flame of the lantern, without bringing it within the same, by simply placing its discharging end in such relation to the current of air that is constantly being drawn toward the flame of the lantern, as to cause the stream of gas escaping therefrom to be drawn with the current directly in contact with said flame. To effect this it is only necessary to pass the bottom of the lantern over the top of the burner, without depressing it so as to bring the burner within the lantern, as this would involve the risk and danger of the burner passing above the flame of the lantern without having its jet of gas ignited, and the lantern being filled with gas, which would of course result in an explosion.

The flared opening in the reservoir or base of the lantern may be extended in diameter at its lower part, to the full diameter of said reservoir if desired, and gradually tapered to assume its reduced diameter at the upper end.

I am aware that openings have been

formed in the lower portions of lamps, for producing draft and supplying air to the flame, and therefore I lay no claim to this device.

- 5 What I claim as my invention and desire to secure by Letters Patent, is—  
Constructing the lamp with a vertical or

nearly vertical passage H, through it when used in connection with a lantern substantially as and for the purposes set forth.

C. McINTOSH.

Witnesses:

J. W. COOMBS,  
W. TUSCH.