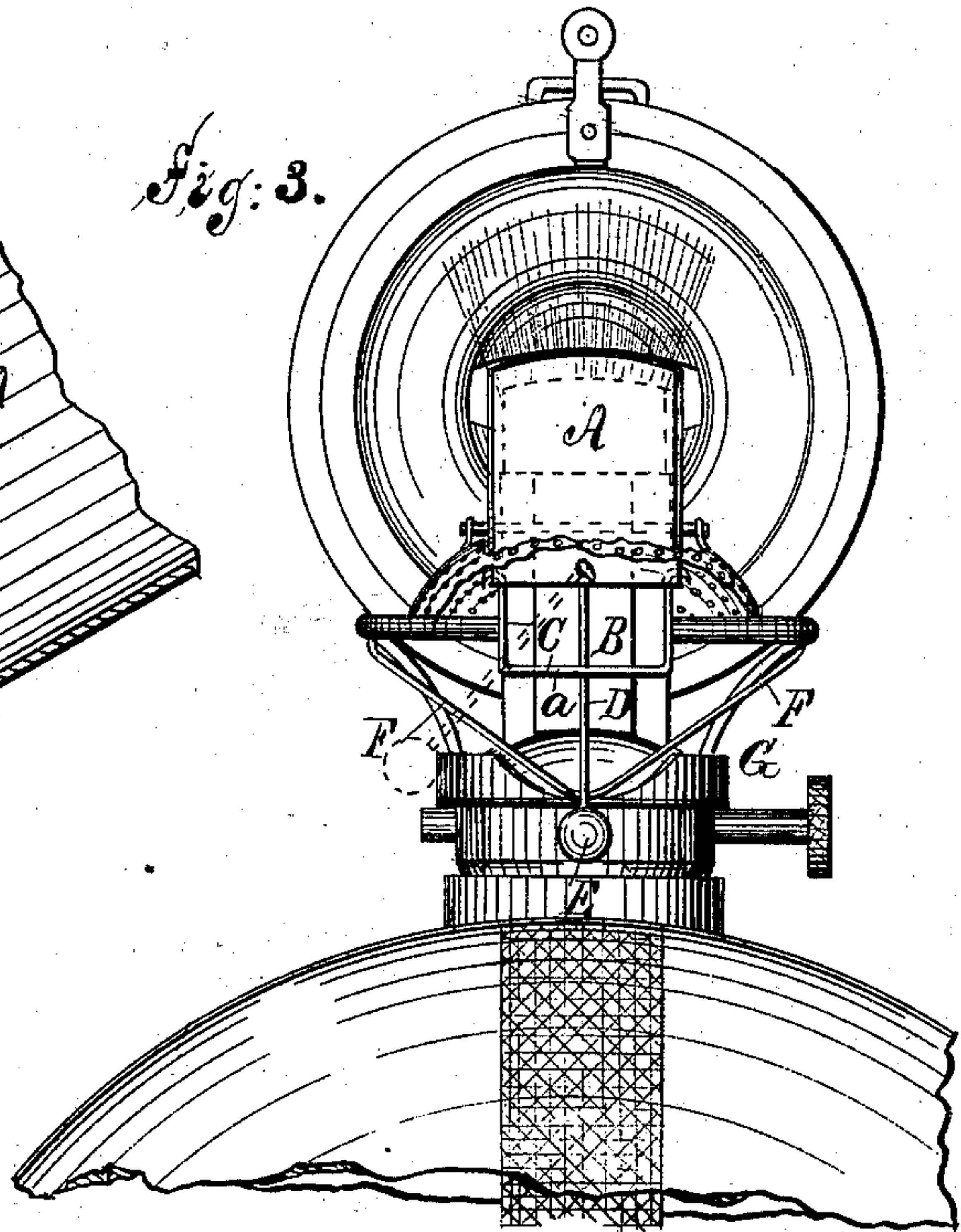
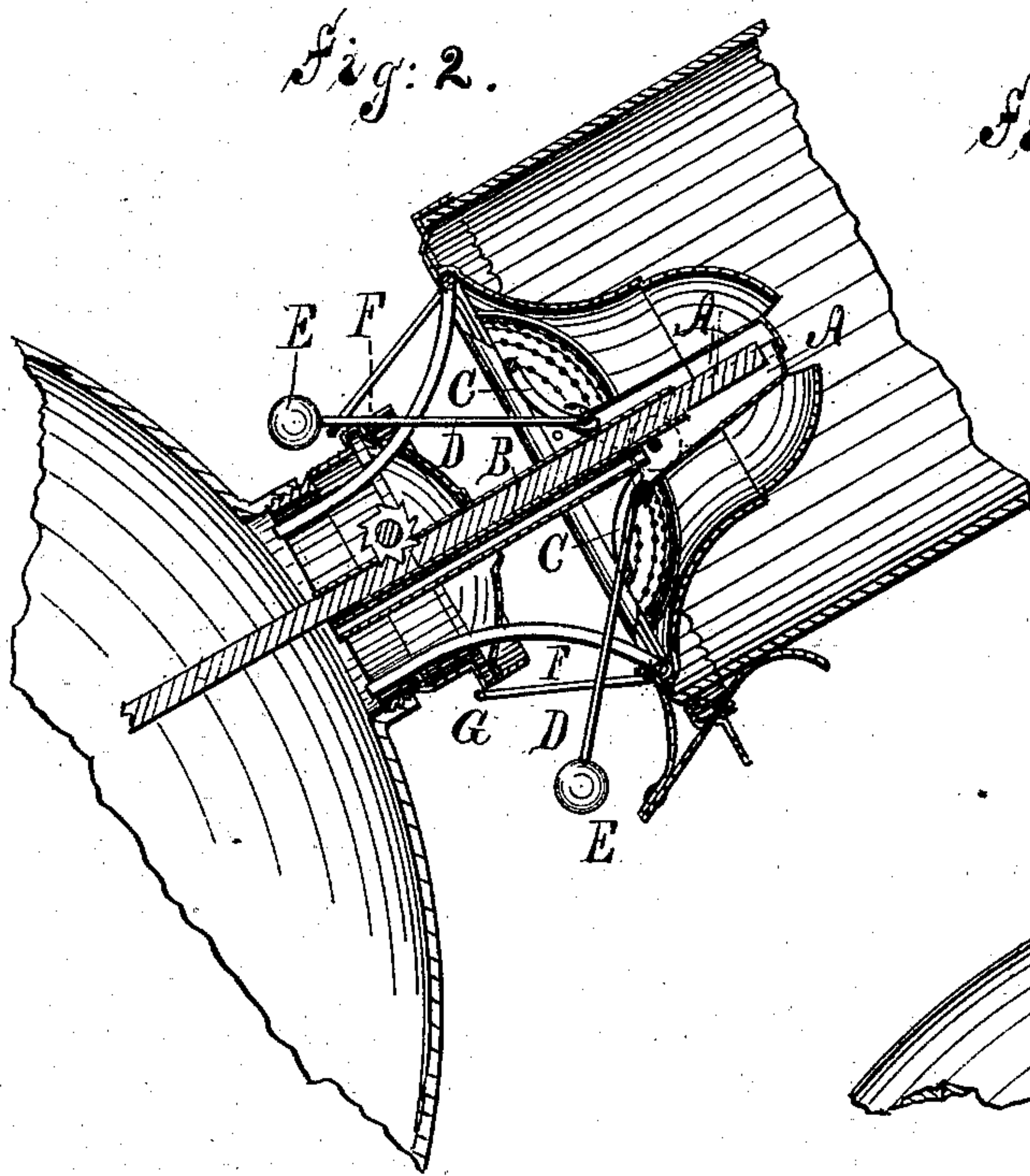
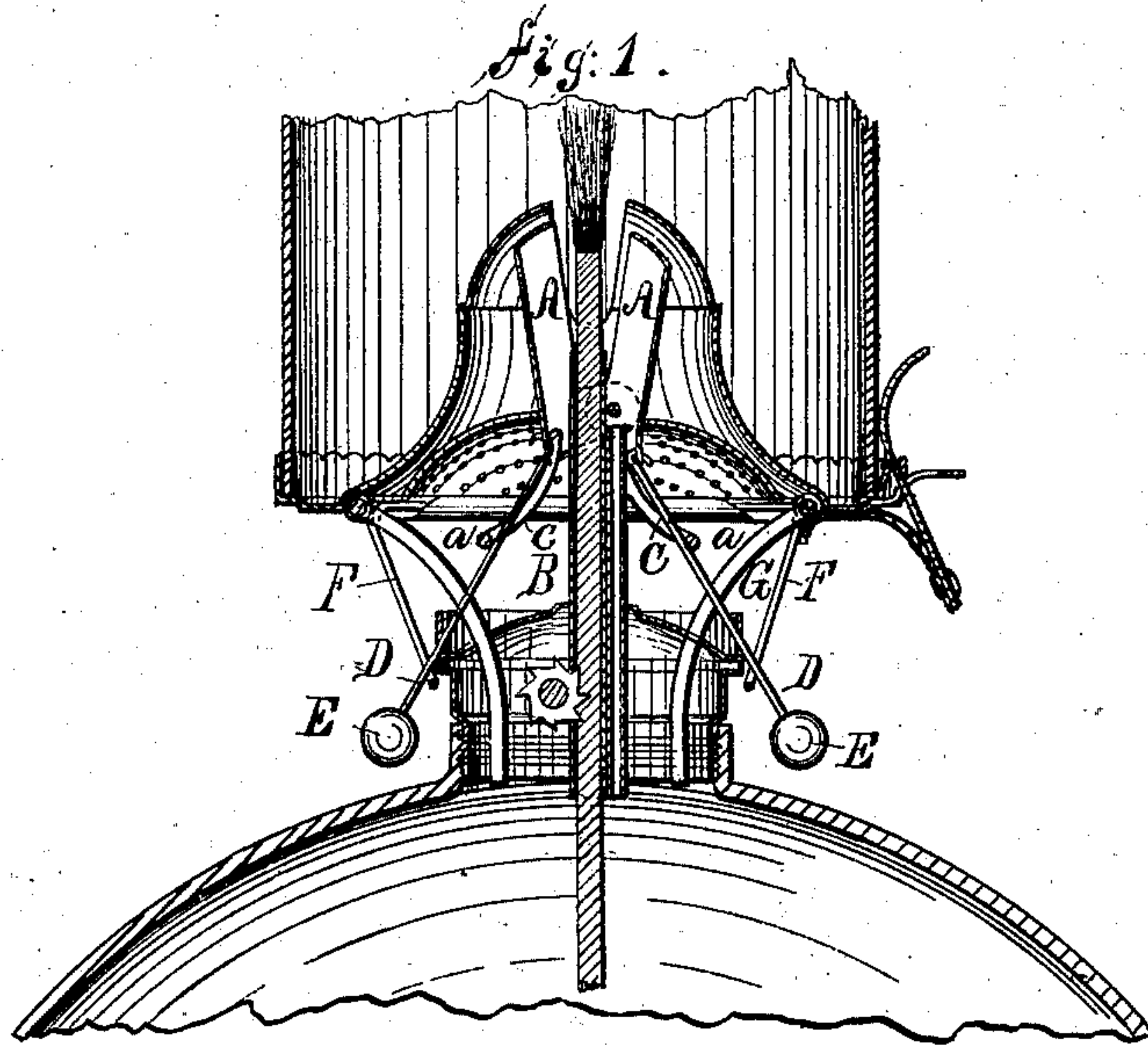


(Model.)

C. W. STIFF.
Automatic Lamp Extinguisher.

No. 239,570.

Patented March 29, 1881.



WITNESSES:

N. E. Whitney.
C. Sedgwick

INVENTOR:

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UNITED STATES PATENT OFFICE.

CHARLES W. STIFF, OF FOXBOROUGH, MASSACHUSETTS.

AUTOMATIC LAMP-EXTINGUISHER.

SPECIFICATION forming part of Letters Patent No. 239,570, dated March 29, 1881.

Application filed December 15, 1880. (Model.)

To all whom it may concern:

Be it known that I, CHARLES W. STIFF, of Foxborough, in the county of Norfolk and State of Massachusetts, have invented a new and Improved Automatic Lamp-Extinguisher, of which the following is a specification.

The object of my invention is to provide a new and improved lamp-extinguisher, by means of which a lamp can be extinguished immediately at any desired time, and which also operates automatically, if the lamp is accidentally upset.

The invention consists in a lamp-burner having two extinguishing-caps pivoted to the wick-tube, or some other suitable part of the burner, in such a manner that they can close over the top of the wick-tube and thus extinguish the flame, which caps are provided with a small wire frame or arm of the width of the cap, extending downward and outward from the lower edge at about an angle of forty-five degrees. A wire with the weight at one end is pivoted to the middle of the lower edge of each cap, and is guided by V-shaped guides, so that when the lamp is inclined or upset the ball, which seeks to draw its wire into a vertical position, will raise the wire frame of the burner and close the cap, thus extinguishing the flame.

In the accompanying drawings, Figure 1 is a cross-sectional elevation of a burner provided with my improved automatic extinguisher, showing the same separated, so as to allow the lamp to burn. Fig. 2 is a cross-sectional elevation of the same, showing it inclined, the cap having closed the wick-tube by the action of the balls or weights. Fig. 3 is a side elevation of the burner, showing the burner-cone raised and parts of the burner broken out to show the construction.

Similar letters of reference indicate corresponding parts.

Two flat extinguishing-caps, A, are pivoted at their lower edges to the wick-tube B, on opposite sides, or to some other parts of the burner, in such a manner that these caps can close over the top of the wick-tube and thus extinguish the flame.

A frame or U-shaped arm, C, made of wire or sheet metal, and of the width of the cap A, is attached to the lower edge of each cap in such a manner that it extends downward and

outward at about an angle of forty-five degrees to the horizontal. This frame is gently curved upward, as shown.

A wire or equivalent, D, is pivoted to the lower edge of each cap A, passes under the bottom longitudinal piece *a* of the frame or arm C, and has a ball, E, of metal or other suitable material attached to its outer end.

A V-shaped guide-wire, F, or a piece of metal with a V-shaped recess, is fastened to each side of the burner parallel to the wick-tube, and serves to guide the wire D, as shown in dotted lines in Fig. 3.

The operation is as follows: Ordinarily the wires D D rest against the edge of the collar G, and the caps A A are opened as their upper ends drop outward by their own weight; but as soon as the lamp is inclined or upset, either intentionally or accidentally, the wire D will be drawn into a vertical position by the ball E, and it will thus draw the lower longitudinal piece of the frame C outward, and consequently the corresponding cap A will be moved inward—that is, over the top of the wick-tube, and thereby it will extinguish the flame. In the above case the assumption has been that the lamp is inclined in a plane at right angles to the wick-tube; but if the lamp is inclined in a plane parallel or inclined to the wick-tube the automatic extinguisher will be equally effective, for the wire D glides along the V-shaped guide F, and can only do so by moving the longitudinal bottom piece, *a*, of the frame or arm C outward, and thus moving the cap inward, whereby the flame is extinguished, as shown in dotted lines in Fig. 3.

This device never fails to work if the lamp is inclined or upset, and it cannot become clogged in operation by pieces of the wick or match-ends.

By raising the balls the light can be extinguished, and this is of great convenience in chandeliers, for the balls can be easily raised by means of a lamp or gas-lighting stick, and the lights can thus be extinguished in the most simple manner.

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

1. In a lamp-burner, the combination, with the extinguishing-caps A, provided with the

arms or frame C, of the wires or equivalent D, pivoted to the caps A, and of the weights E E, attached to wires D D, substantially as herein shown and described, and for the purpose set forth.

2. A lamp-burner constructed substantially as herein shown and described, with V-shaped guides attached thereto parallel to the wick-tube, for the purpose of guiding a weighted wire acting upon an extinguishing-cap over the wick-tube, as set forth.

3. In a lamp-burner, the combination, with the extinguishing-caps A A, provided with the frames or arms C, of the wires D, weights E,

and V-shaped guide-frames F, substantially as herein shown and described, and for the purpose set forth.

4. In a lamp-burner, the extinguishing-caps A, constructed substantially as herein shown and described, with a frame or arm, C, of the width of cap, attached to the lower edge of the same, and extending downward and outward at an angle of about forty-five degrees to the horizontal, as set forth.

CHARLES W. STIFF.

Witnesses:

OSCAR F. GUNZ,
C. SEDGWICK.