

M. B. & C. G. DYOTT.
Gas-Burner.

No. 213,879.

Patented April 1, 1879.

FIG. 1.

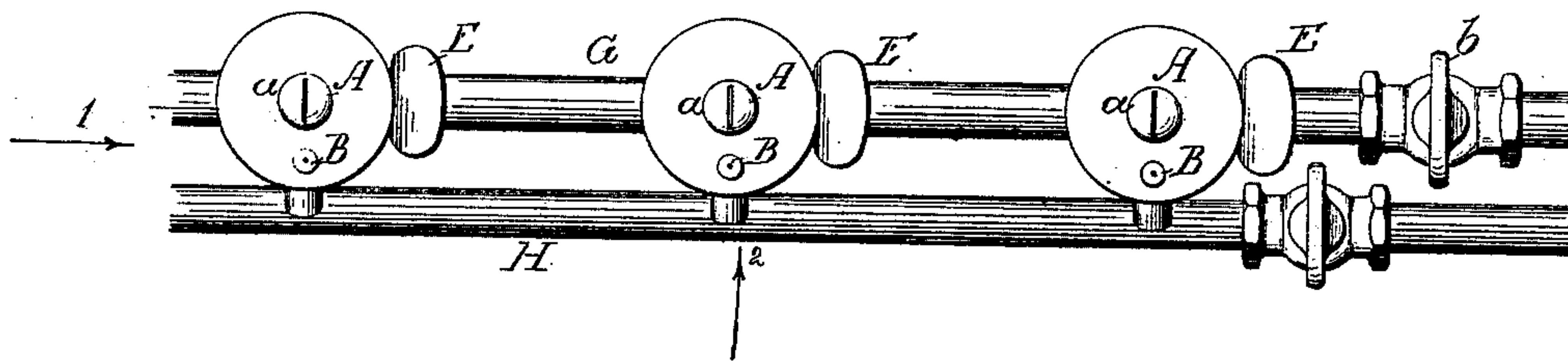


FIG. 2.

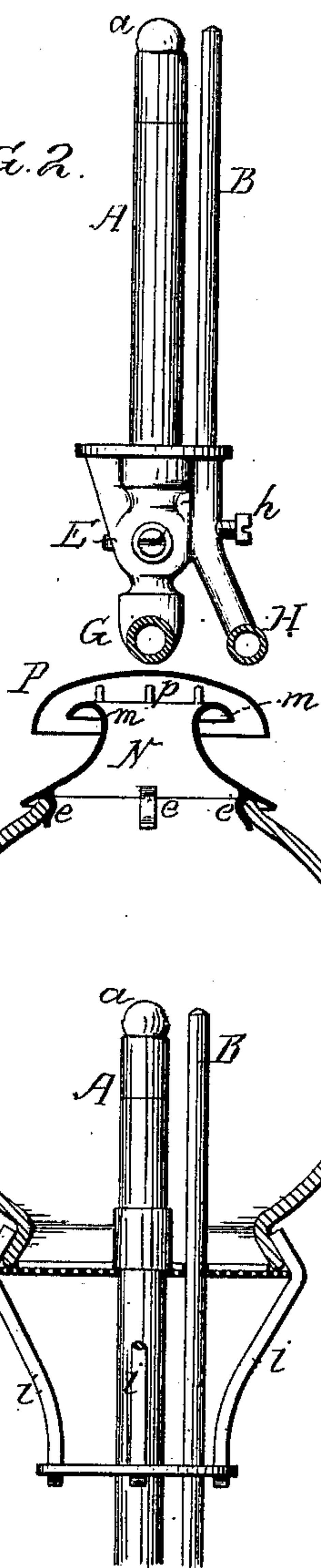


FIG. 3.

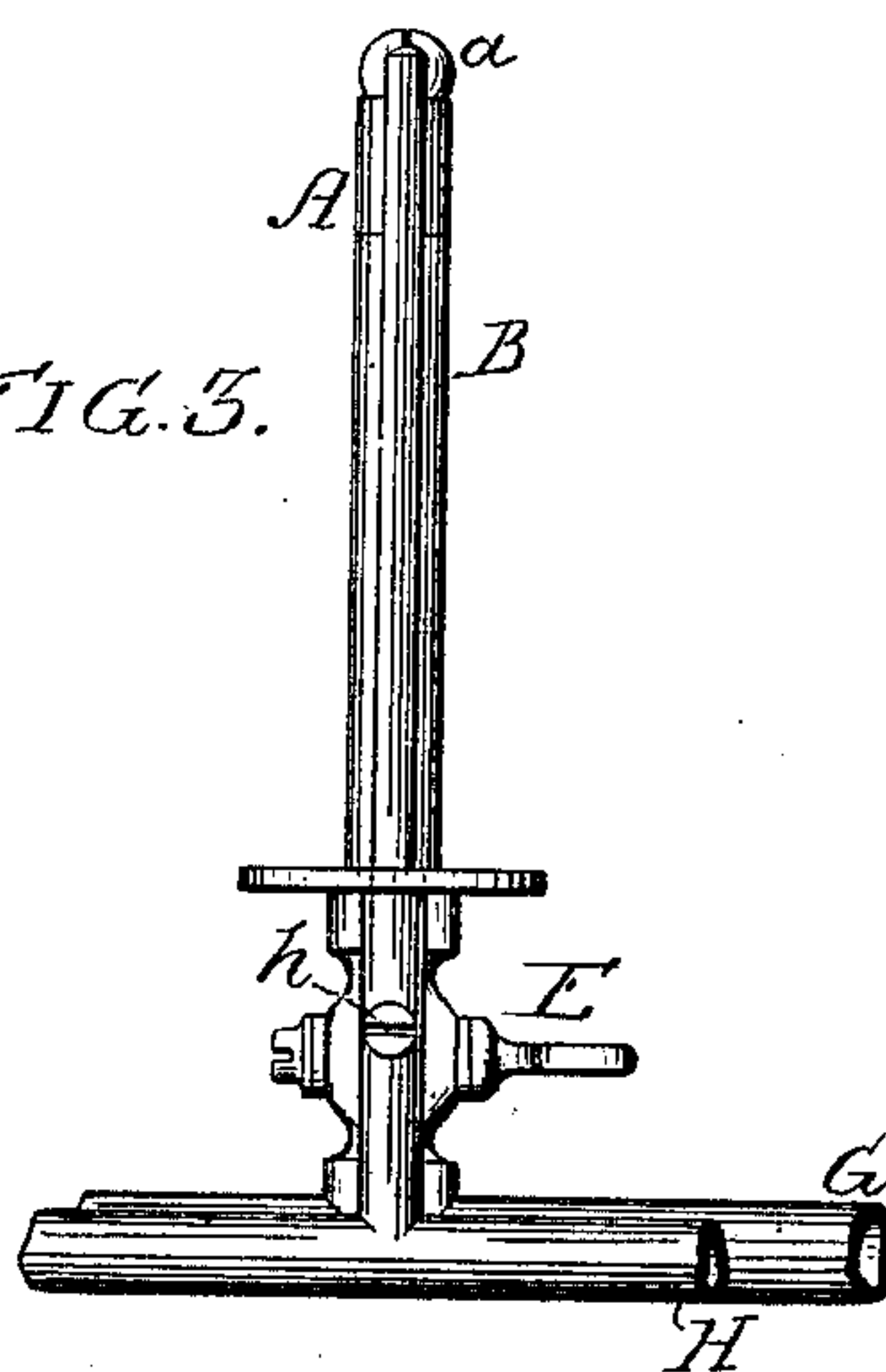


FIG. 4.

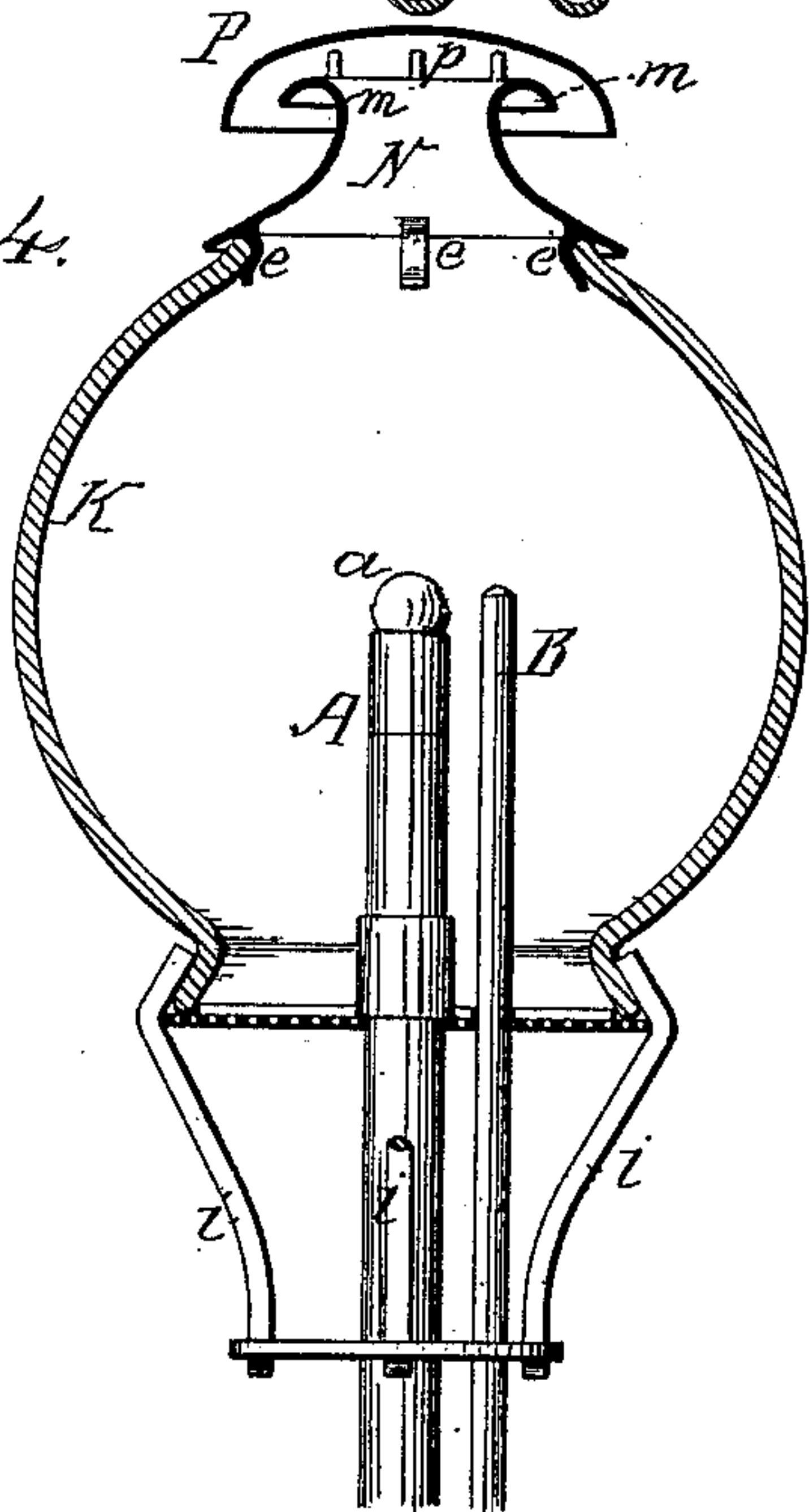


FIG. 5.

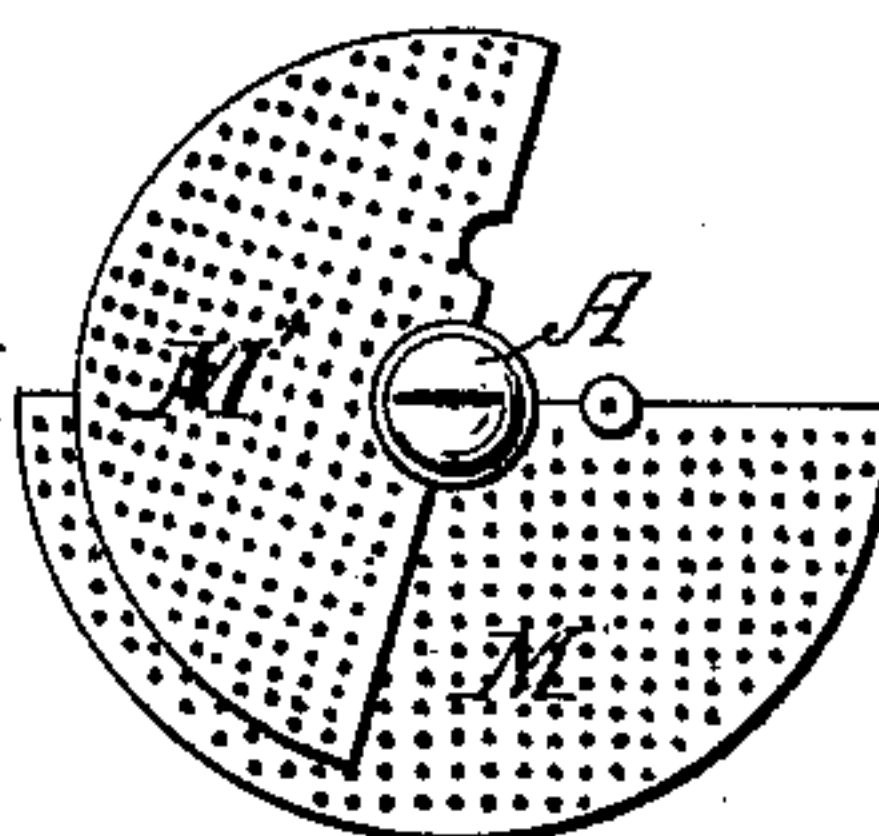
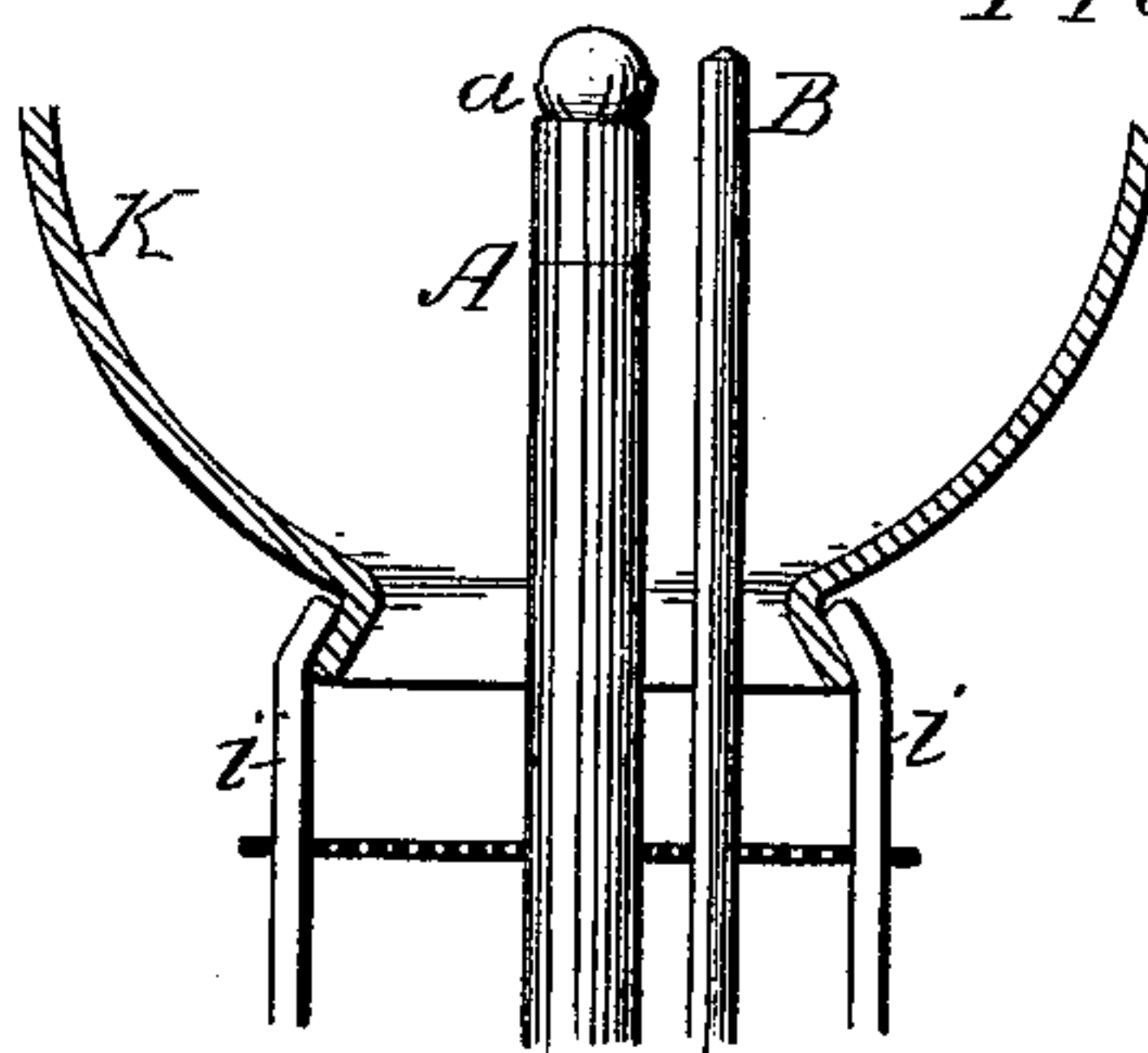


FIG. 6.



Witnesses.
John A. Reimer
Harry Smith

Inventors
Michael B. Dyott
and
Charles G. Dyott
by their attorneys
Hobson and Son

UNITED STATES PATENT OFFICE.

MICHAEL B. DYOTT AND CHARLES G. DYOTT, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNORS TO SAID CHARLES G. DYOTT.

IMPROVEMENT IN GAS-BURNERS.

Specification forming part of Letters Patent No. **213,879**, dated April 1, 1879; application filed September 23, 1878.

To all whom it may concern:

Be it known that we, MICHAEL B. DYOTT and CHARLES G. DYOTT, both of Philadelphia, Pennsylvania, have invented a new and useful Improvement in Gas-Burners, &c., of which the following is a specification:

The main objects of our invention are to simultaneously light a number of gas-burners provided with supplementary burners, and to so prevent the extinguishing of the flames of the said burners that they will always be in proper condition to perform their duty.

In the accompanying drawings, Figure 1 is a plan view, showing a number of gas-burners with supplementary tubes and the independent gas-distributing pipes; Fig. 2, an elevation of Fig. 1, looking in the direction of the arrow 1; Fig. 3, an elevation of part of Fig. 1, looking in the direction of the arrow 2; Fig. 4, a view of the burner and shade or globe, with devices combined with the latter to prevent the extinguishing of the flame; Fig. 5, a plan view of part of Fig. 4, and Fig. 6 a modification of part of our invention.

In Figs. 1, 2, and 3, A A A are a series of tubes, each surmounted with a burner, *a*, adjoining which is a supplementary burner at the upper end of a small tube, B. Gas is always in communication with the small tube, and burns with a flame too small to consume much gas, but large enough to ignite that at the main burner, X, when the gas is turned onto the same. This duplex burner is an old device, to which we can lay no claim; but in order that the gas at all the main burners of a series may be lighted simultaneously by the flames of the supplementary burners, we combine the series of duplex burners with two independent distributing-pipes, G and H, the pipe G communicating with the tubes A of the main burners, and the pipe H with the tubes B of the supplementary burners. The gas is always turned on the pipe H, and ignited at all the supplementary burners, so that when the cock *b* is turned so as to admit the gas to the pipe G it will be ignited at the tips of all the main burners simultaneously.

There should be a cock, E, between each main-burner tube A and the pipe G, so that the gas may be cut off from any one or more

of the burners without interfering with the simultaneous ignition of the gas at the remaining burners. A small screw-valve, *h*, may also be used for cutting off the gas between the distributing-pipe H and the tube B of each supplementary burner.

It is important that provision should be made for preventing the extinguishing of the supplementary flames, especially where the burners are exposed to the wind, as in railway-stations, &c., and this protection is afforded by the devices illustrated in Figs. 4 and 5.

K is a glass globe, supported by arms *i i i*, attached to the tube of the main burner, and at the base of the globe is a screen made of perforated plate or wire-gauze, one half, M, Fig. 5, of this screen being secured to the arms *i*, and the other half being arranged to turn on the tube A, so that it may be moved to one side over the permanent half when access has to be had to the interior of the globe for lighting the supplementary burner. This screen will effectually prevent gusts of wind from entering the globe from below.

Instead of making the screen in two parts, one half of which is adjustable, it may be made in one piece, and so adapted to the supporting-arms *i* of the globe that it can be depressed from or elevated to the base of the same.

A metal ring, N, is fitted to the top of the globe, and is, in the present instance, secured by lips *e*, underlapping the edge of the opening in the top of the said globe, the ring being turned down abruptly at *m*, so as to form an annular deflecting-flange. Over the top of the ring, and connected to the same by any suitable number of studs *p*, is placed the inverted cup P, the space between which and the deflector is sufficient for the free escape of heated air and gases from the interior of the globe.

A gust of wind from any point against the globe cannot enter the same at the top, owing to the deflection, which causes such a reaction of the air that it will be directed downward and outward.

We do not desire to claim in this application the devices for protecting the flame from the action of sudden drafts, as such devices will probably form the subject of a separate application for a patent.

We claim as our invention—

The combination of a series of gas-burners, each having a small supplementary burner, with the main distributing-pipe G and supplementary distributing-pipe H, the former communicating with the main burners only of the series, and the pipe H with the supplementary burners only, but both pipes G and H communicating with the main gas-supply pipe, all substantially as set forth.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

MICHAEL B. DYOTT.
CHAS. G. DYOTT.

Witnesses:

HARRY A. CRAWFORD,
HARRY SMITH.