

(No Model.)

J. PFAU.
VAPOR BURNER.

No. 358,878.

Patented Mar. 8, 1887.

FIG. 1.

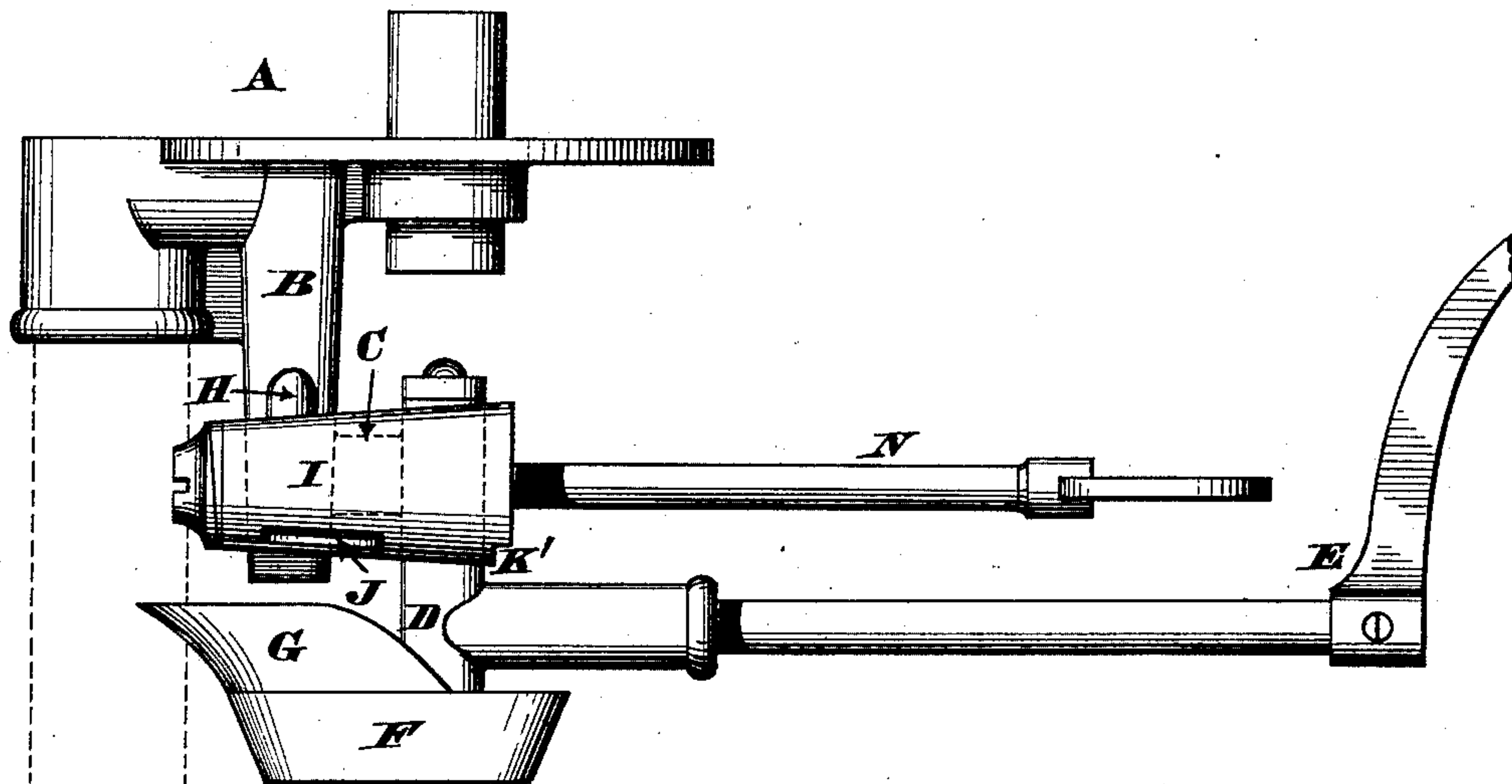


FIG. 2.

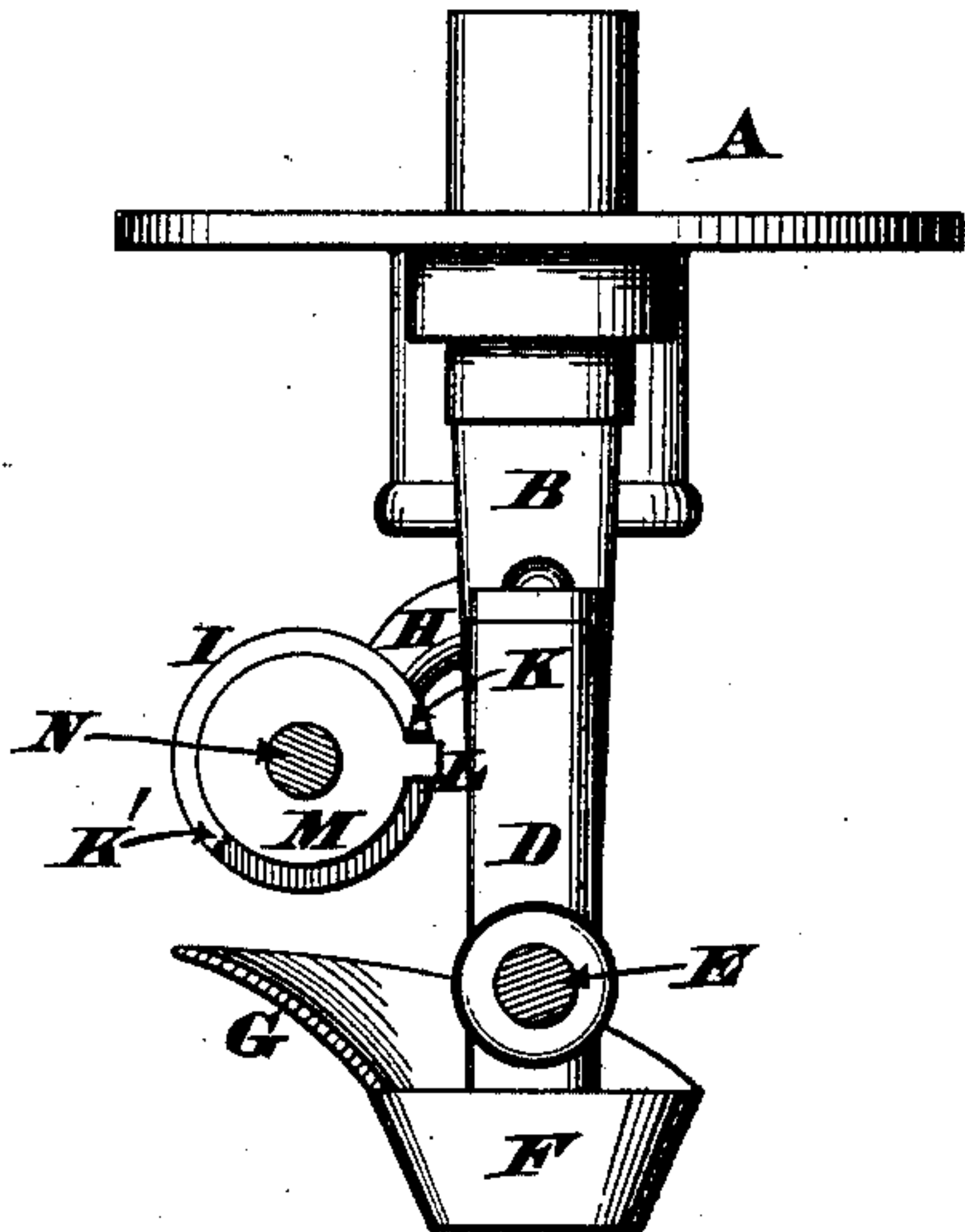


FIG. 3.

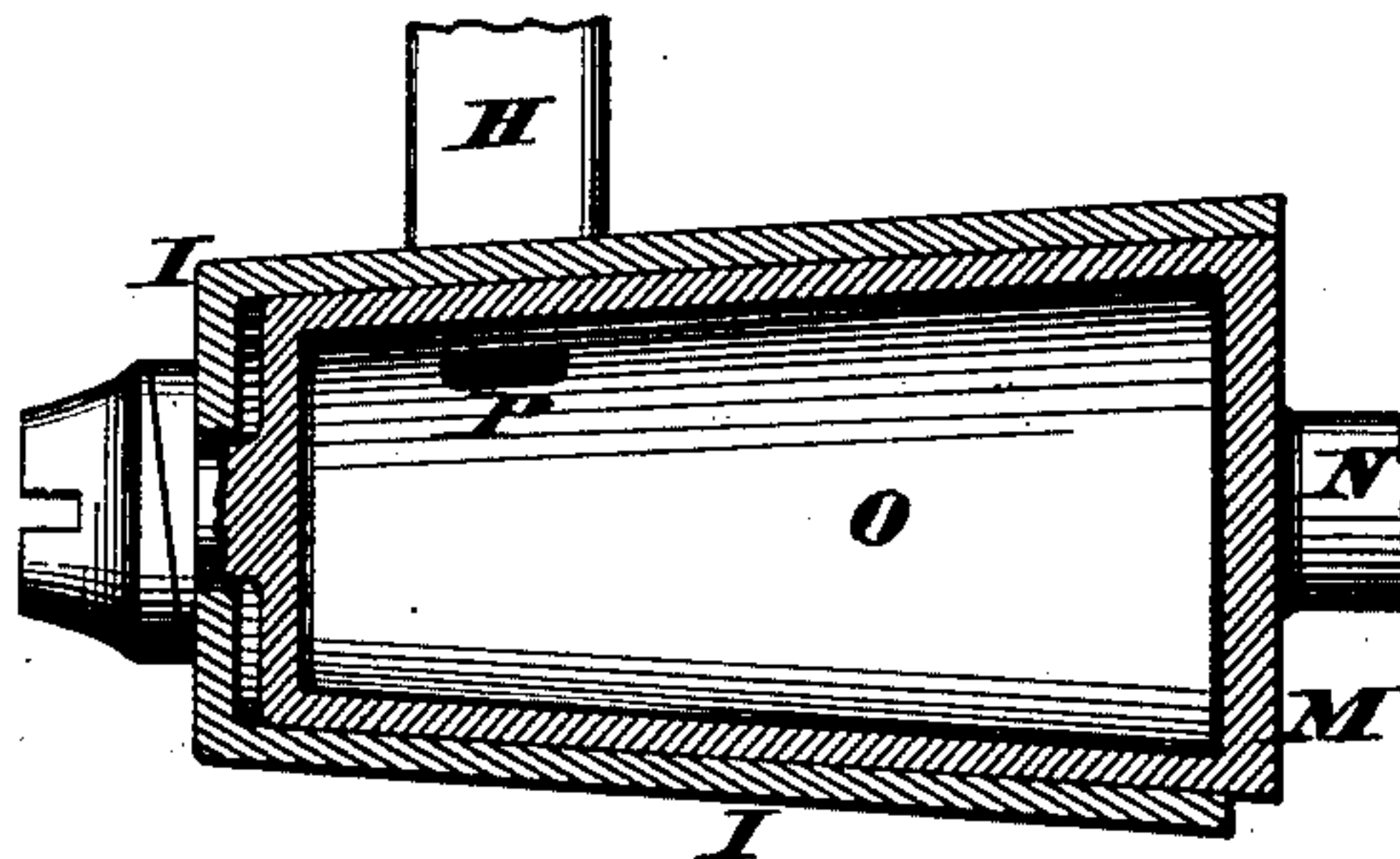


FIG. 4.

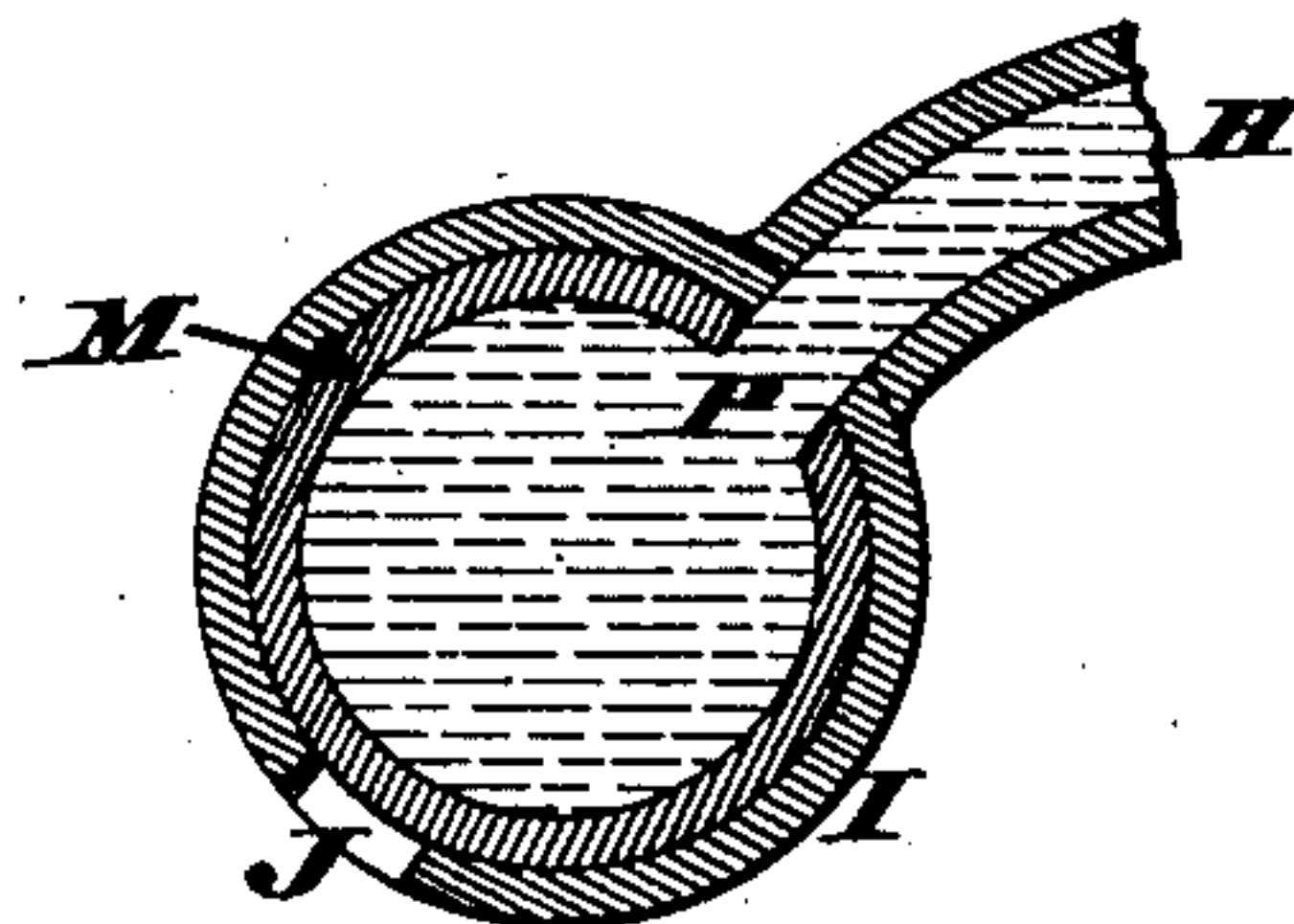
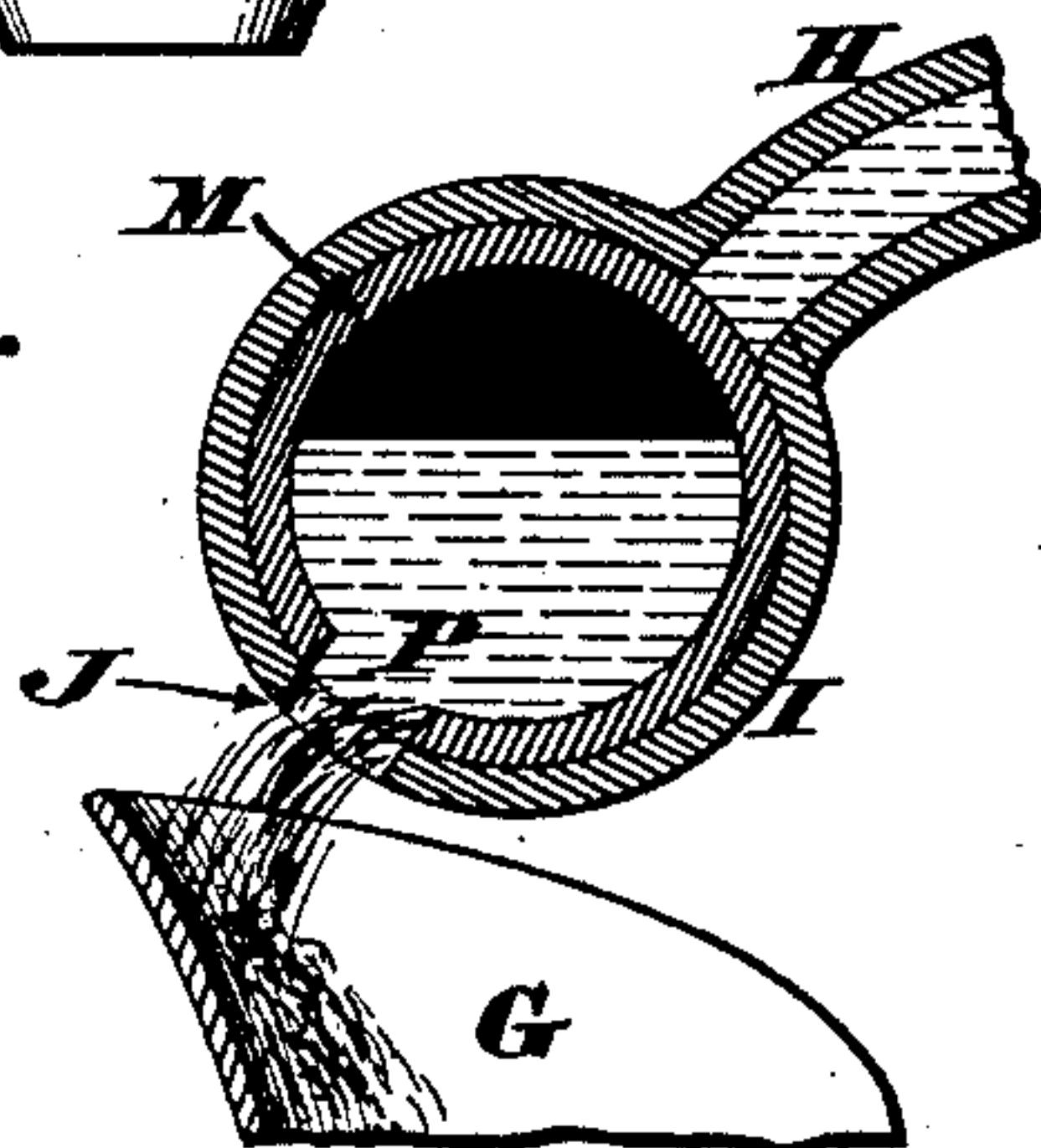


FIG. 5.



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JACOB PFAU, OF CINCINNATI, OHIO.

VAPOR-BURNER.

SPECIFICATION forming part of Letters Patent No. 358,878, dated March 8, 1887.

Application filed April 13, 1886. Serial No. 198,697. (No model.)

To all whom it may concern:

Be it known that I, JACOB PFAU, a citizen of the United States, residing at Cincinnati, in the county of Hamilton, State of Ohio, have
5 invented certain new and useful Improvements in Vapor-Burners, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to those burners which
10 are attached to gasoline and other vapor stoves or similar heating and cooking apparatus, and the object of the improvement is to furnish such burners with a device that will insure the proper filling of the "cup" and at the same
15 time prevent any accidental overflowing of the same. To accomplish this result I provide the burner with a special "cup-charger," which usually consists of a plug or cut-off or other appliance that is capable of being shifted
20 as occasion may require. When shifted or turned in one direction, the chamber of the plug is filled with gasoline or other burning-fluid; but when said plug is shifted or turned in an opposite direction this charge of fluid is
25 emptied into the cup. Therefore, by making the capacity of the charger about equal to the capacity of the cup the latter can be filled with the proper quantity of fluid to heat the burner preparatory to generating the gas therein, as
30 hereinafter more fully described.

In the annexed drawings, Figure 1 is a side elevation of my improved vapor-burner, the handle of the charger being shown turned to permit the latter being filled with gasoline.
35 Fig. 2 is a front elevation of the burner, the handles thereof being sectioned. Fig. 3 is an enlarged longitudinal section of the charger, the port of the same being shown in communication with the branch pipe. Fig. 4 is a
40 transverse section taken through said charger in the plane of the branch pipe. Fig. 5 is a similar section in the same plane, but showing the charger in the act of emptying its contents into the cup of the burner.

45 A represents an ordinary gasoline or vapor burner, having a depending tube, B, from which a side pipe, C, (indicated by dotted lines in Fig. 1,) extends to a valve-chamber, D, containing any approved form of regulator.

50 E is the handle of this regulator.

F is a customary cup, attached to the lower

end of valve-chamber D, said cup being provided with a lip, G, for a purpose that will presently appear. Proceeding from this tube
55 B is a branch pipe, H, that communicates with a shell or casing, I, having a discharge opening or slot, J, and provided at one end with a pair of shoulders or other stops, K K', which arrest the lateral lug L of a plug or cut-off, M. This cut-off is adapted to be turned within the
60 shell I by means of a handle, N, and is chambered at O, the capacity of said chamber being about equal to the capacity of the cup F. P is a port leading into this chamber of the
65 plug or other cut-off.

When the burner is in its normal condition, the handle N is turned to the position seen in Fig. 1, which act causes the lug L of plug M to come in contact with stop K of casing I, as
70 represented in Fig. 2. As a result of this turning of the plug its port P is brought in line with the branch pipe H, as seen in Fig. 4, thereby causing the chamber of said plug to become filled with gasoline or other burning-fluid; but the fluid cannot now escape, because
75 the discharge-opening J is closed. To start the burner the handle N is turned until the lug L comes in contact with the other stop, K', which act causes the port P of plug M to be brought in line with said discharge-opening J,
80 as seen in Fig. 5. Consequently the fluid contained in chamber O is discharged therefrom and falls onto the lip G, which sheds said fluid into the cup F. The fluid in the cup is then ignited and the gas generated in the burner in
85 the usual manner.

From this description it is apparent that the chambered plug acts as a cut-off or charger that supplies the cup with sufficient fluid to
90 generate the gas, thereby rendering it impossible to overflow said cup, unless the plug is repeatedly and intentionally turned, which can be guarded against by proper instructions furnished to the user of the stove or other apparatus.
95

It is evident this invention may be modified by causing the cut-off to reciprocate within the casing and omitting the pipe H, in which event the inlet-port P would open directly into the tube B.
100

I claim as my invention—

1. The combination of a vapor-burner, a

casing communicating therewith and having a discharge-port, a shiftable charger fitted within said casing, and a charging-cup applied to the device, for the purpose described.

5 2. The combination of a vapor-burner, A B, a casing, I, provided with inlet H and outlet J, a revolving plug, M, fitted within said casing and furnished with a chamber, O, and discharge-opening P, and a charging-cup, F, applied to the device, for the purpose described.

10 3. The combination, with a vapor-burner,

of tube B, side pipe, C, valve-chamber D, handle E, cup F, casing I, having a discharge-opening, J, and stops K K', and a revolving plug, M, provided with lug L, handle N, chamber O, and port P, as herein described. 15

In testimony whereof I affix my signature in presence of two witnesses.

JACOB PFAU.

Witnesses:

JAMES H. LAYMAN,
SAML. S. CARPENTER.