

No. 630,328.

Patented Aug. 8, 1899.

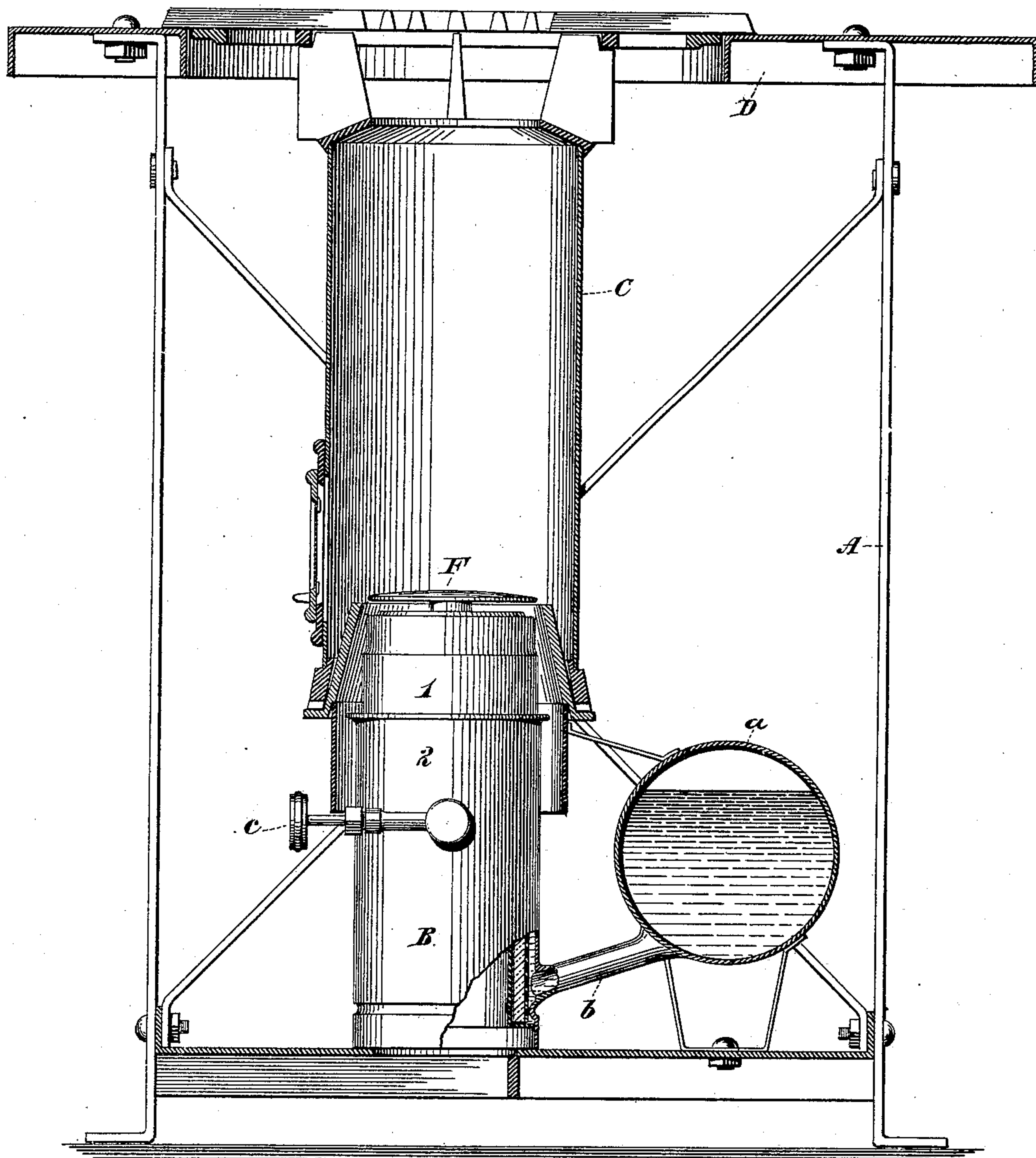
D. CORADINO.
OIL STOVE.

(Application filed May 26, 1899.)

(No Model.)

3 Sheets—Sheet 1.

Fig. 1.



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Fig. 2.

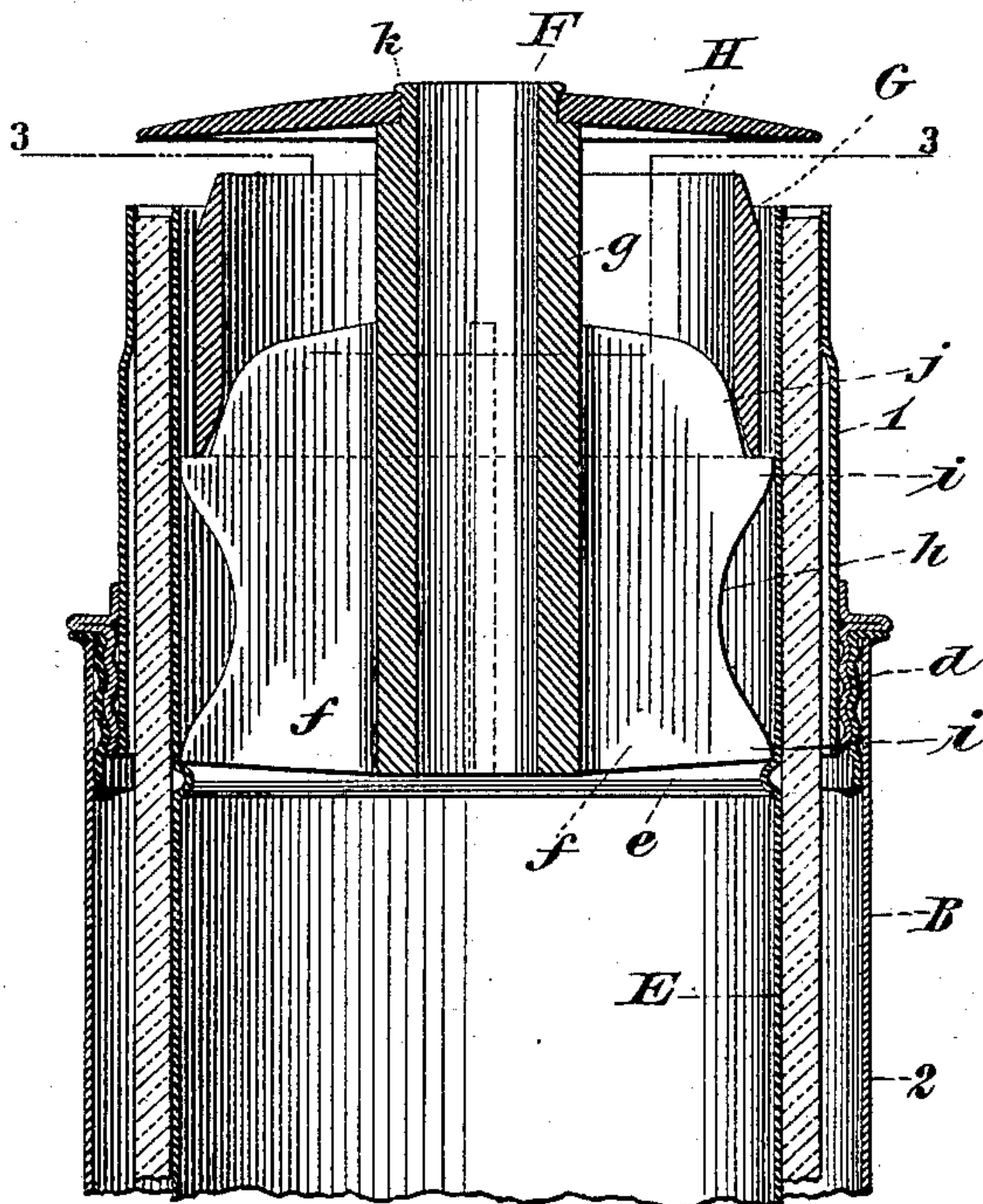
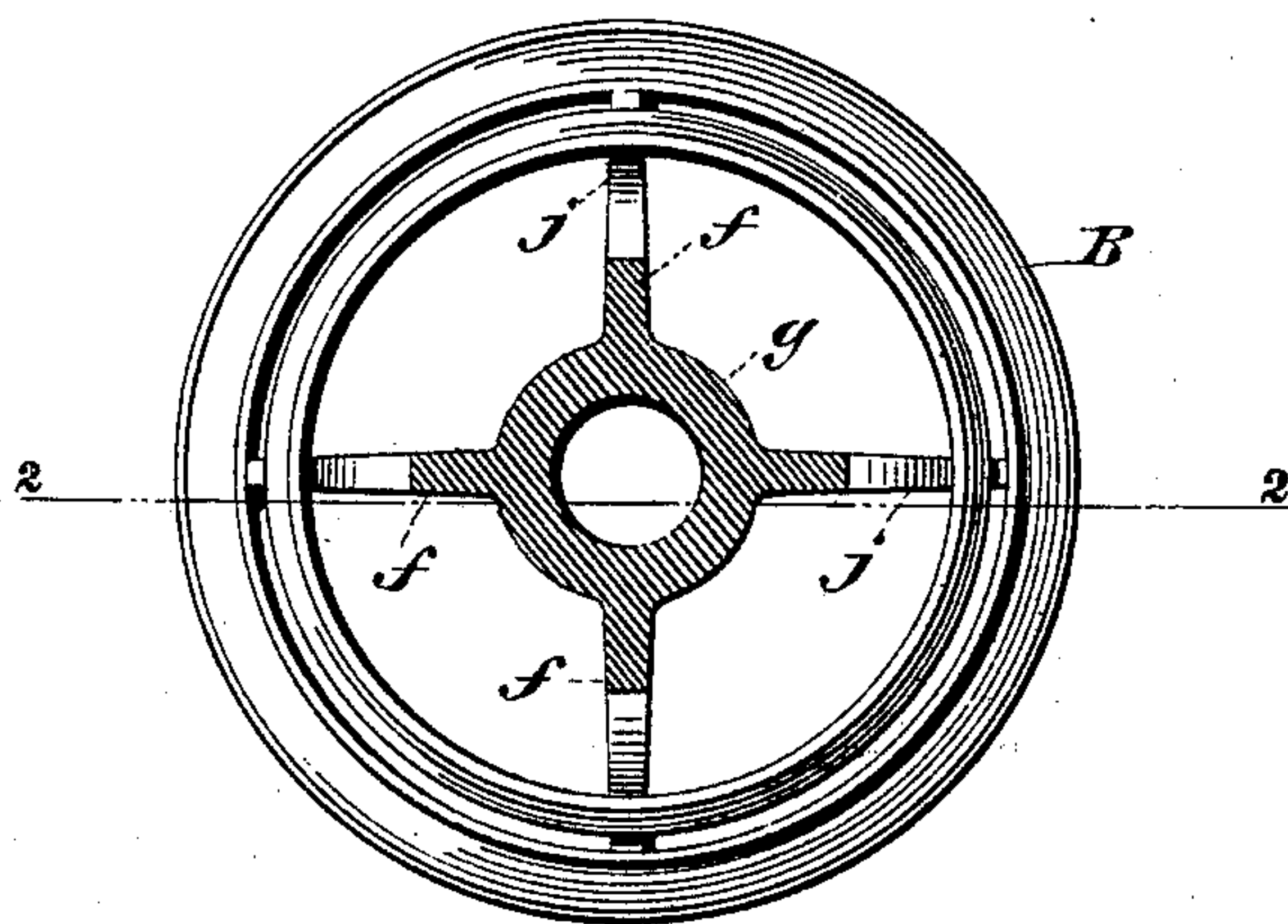


Fig. 3.



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Fig. 4.

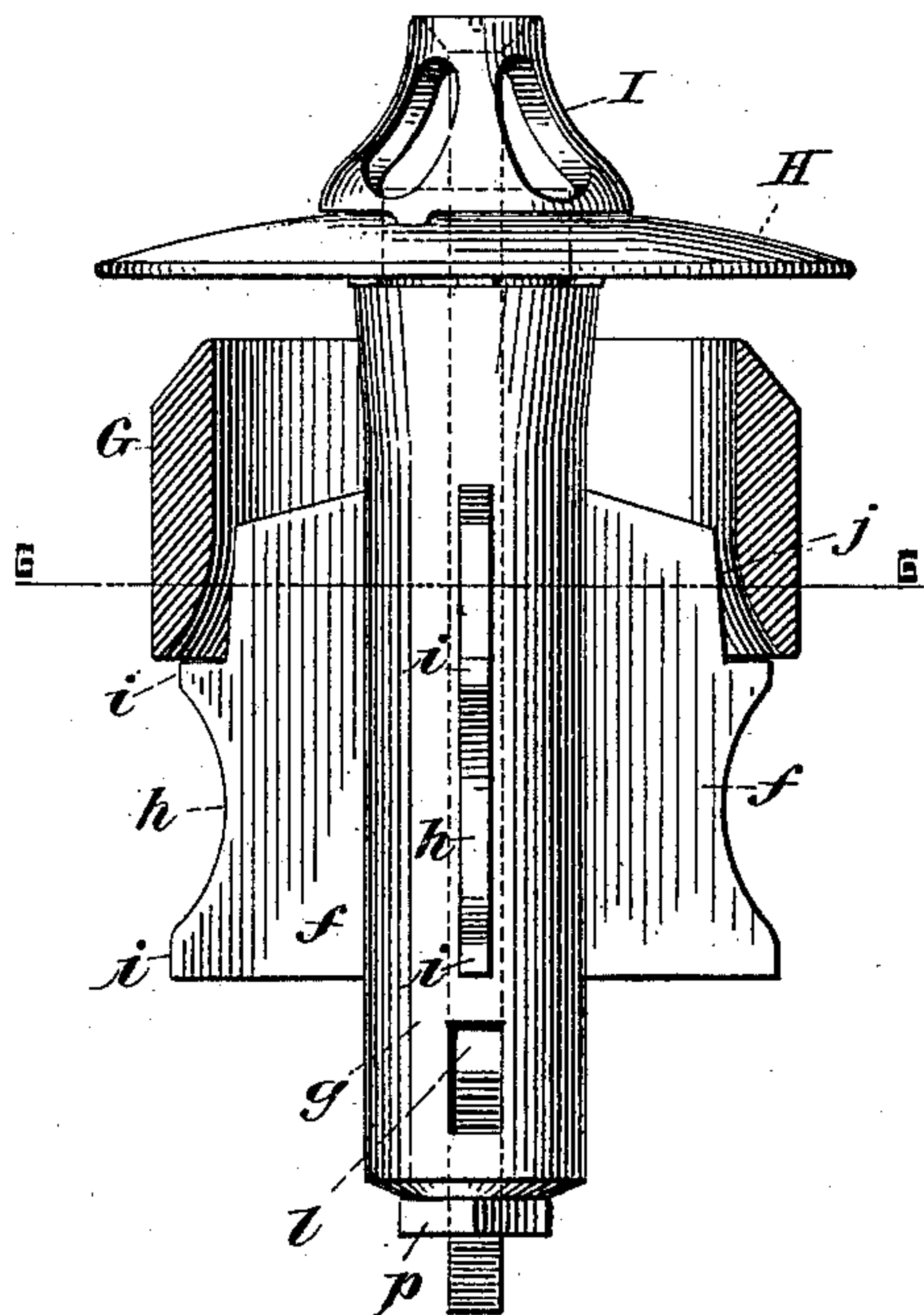


Fig. 5.

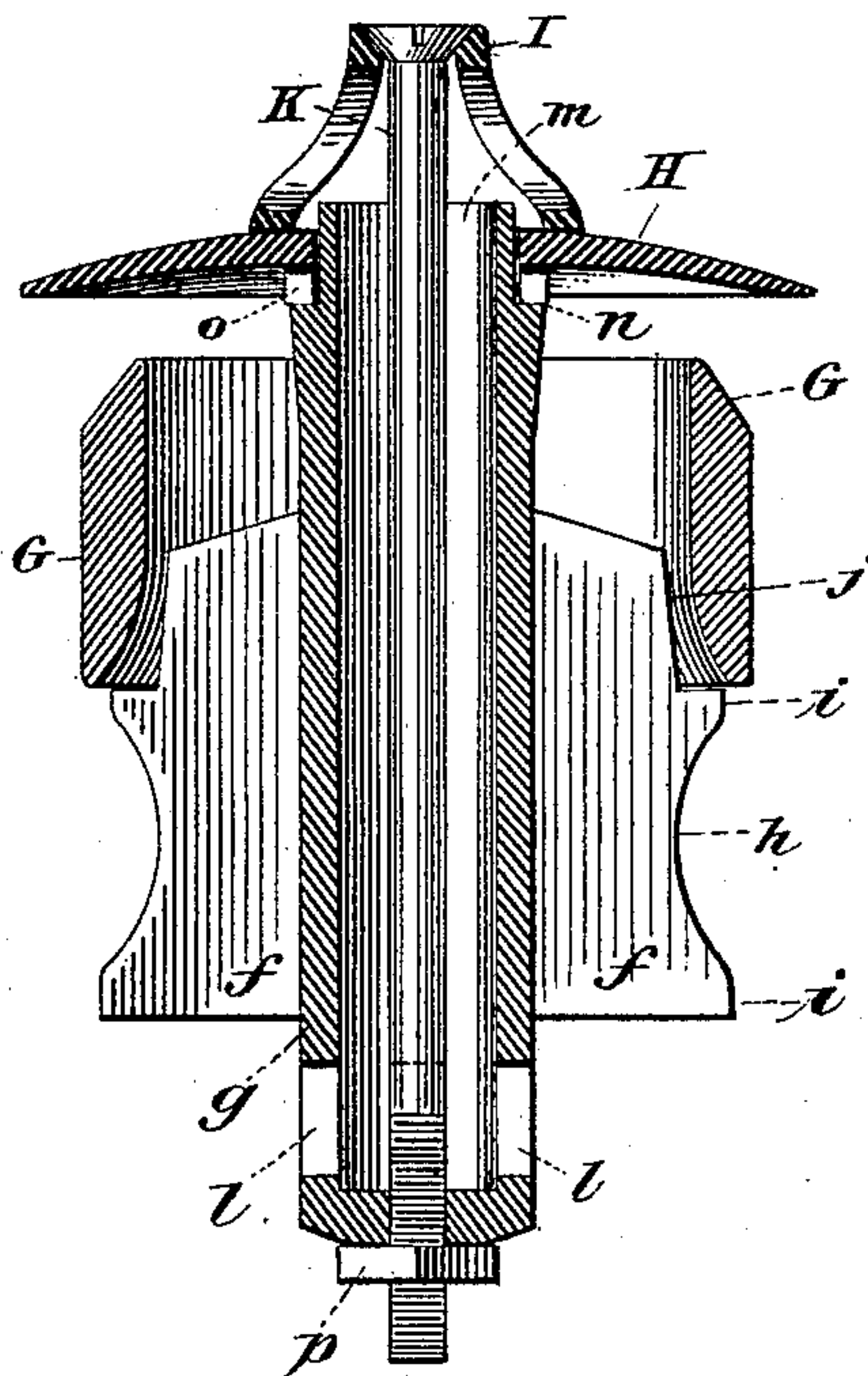
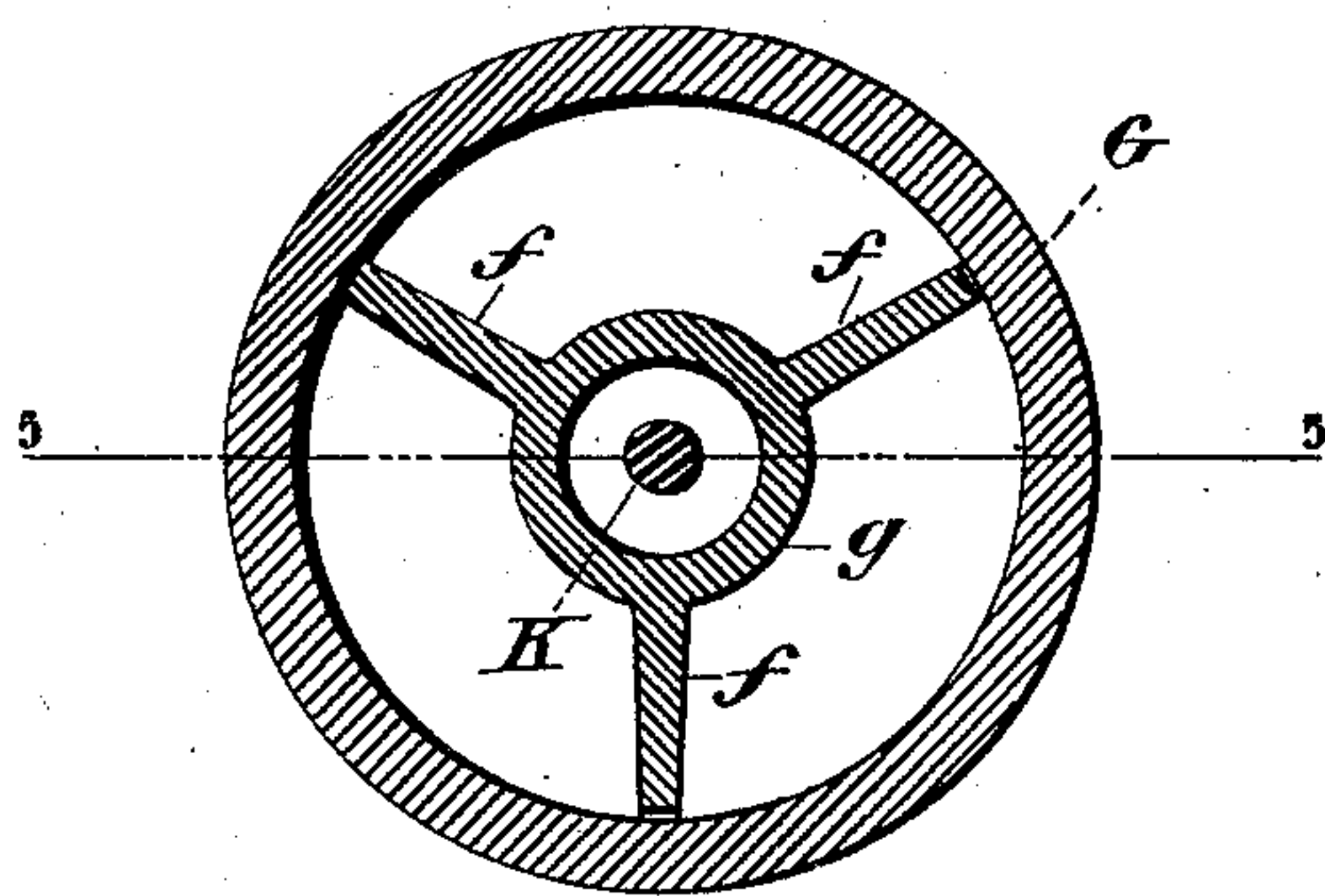


Fig. 6.



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UNITED STATES PATENT OFFICE.

DOMINICK CORADINO, OF HOBOKEN, NEW JERSEY, ASSIGNOR TO LUTHER & LEDERHOS, OF NEW YORK, N. Y.

OIL-STOVE.

SPECIFICATION forming part of Letters Patent No. 630,328, dated August 8, 1899.

Application filed May 26, 1899. Serial No. 718,375. (No model.)

To all whom it may concern:

Be it known that I, DOMINICK CORADINO, residing at Hoboken, Hudson county, State of New Jersey, have invented certain new and useful Improvements in Oil-Stoves, of which the following is a specification.

My invention relates to oil-stoves; and the invention is directed more particularly to a "spreader" for what is known as a "blue-flame" oil-stove.

The object of my invention is to provide an oil-stove with a spreader which is simple in construction, cheap to manufacture, efficient in use, and which cannot by the action of the heat thereon become deranged or broken, and thereby destroy the utility of the stove as a whole.

To these ends my invention consists in the construction and novel arrangement of parts in an oil-stove, as will be hereinafter described and claimed.

Heretofore in the construction of oil-stoves it has been customary to construct the spreader and its coöperating parts of several pieces of sheet metal, which were stamped out and soldered together, and much difficulty has been experienced by reason of the fact that it was difficult in the first instance to solder the parts together in such a manner that an exact and reliable adjustment or correlation of the parts could be secured and maintained. Where the proper adjustment or correlation of the parts is not secured, the flame will be one-sided and the stove rendered imperfect and ineffective. Furthermore, the solder uniting the parts is liable to be melted by the action of the heat upon the spreader, and the stove will then be rendered ineffective and useless. By my invention I overcome these and other defects found in oil-stoves heretofore constructed.

Upon reference to the accompanying drawings, which illustrate an oil-stove embodying two forms of my invention, Figure 1 is a transverse view, partly in section, of a sufficient number of parts of an oil-stove to illustrate my invention. Fig. 2 is an enlarged detail central vertical section of the burner, the said section being taken on the line 2 2 of Fig. 3. Fig. 3 is a transverse sectional view of the same, taken on the line 3 3 of Fig. 2. Fig. 4

is a detail side view, with parts in section, of a modified form of spreader embodying my invention. Fig. 5 is a central vertical section of the same, the view being taken on the line 5 5 of Fig. 6. Fig. 6 is a transverse sectional view of the same, the section being taken on the line 6 6 of Fig. 4.

Reference being had to Fig. 1 of the drawings, A indicates the framing of the stove, upon which is supported a suitable reservoir *a*, which communicates with the wick-tube B by a pipe *b* or otherwise. Above the wick-tube B is shown a suitably-supported drum C, above which is the top of the stove D, which has suitable openings therein through which the heat may pass through the drum C.

So much of the construction as has been described constitutes no essential feature of my invention, and it will be understood that the features constituting my invention may be applied to stoves of radically different characters from that shown.

Supported upon the wick-tube B, I have shown a wick-raiser *c*, which may be of any desired construction. The wick-tube (or what I have designated as a "wick-tube" B) is preferably made in two sections (see Fig. 2,) which sections are detachably united by suitable means, such as a screw-thread connection *d*, so that the upper section 1 may be removed to give access to a considerable portion of the wick without removing the spreader or the wick, as will hereinafter more clearly appear. Within what I have termed the "wick-tube" B is contained what I term a "draft-tube" E, which is open at the lower end to the outer air, as indicated in Fig. 1 of the drawings. This draft-tube E is provided at the upper portion thereof with a suitable spreader-support, which in the present instance consists of a circumferential flange *e*. The supporting-arms *f* of the spreader F rest upon this circumferential flange *e* and maintain the spreader in the proper position with relation to the upper end of the draft and wick tubes.

One form of spreader embodying my invention is represented in Figs. 2 and 3 of the drawings, from which it will be seen that a central hollow spindle *g* is provided with the radiating supporting and deflecting arms *f*, which are formed integral therewith. These

arms are recessed at the edges thereof, as indicated at *h*, so as to form a plurality of abutments *i*, which are adapted to bear against the draft-tube at two or more points, two being shown in the present instance. By this construction of the supporting-arms there is but little contact-surface between the draft-tube and the supporting-arms of the spreader, so that the heat of the spreader will not be readily transmitted to the draft-tube nor the heat of the draft-tube be readily transmitted to the spreader. The upper portion of each of the supporting-arms is beveled, as indicated at *j*, to constitute a centering and supporting means for a deflector-ring *G*, which deflector-ring is loosely seated upon the beveled portions of the supporting-arms and is properly maintained centered upon said arms by contact with the beveled portions. To the upper portion of the spindle *g* is secured a deflector-cap *H*, which in the construction represented in Figs. 2 and 3 of the drawings is secured in place by projecting a portion of the central spindle through a central aperture in said deflector-cap and turning the metal of the spindle, as represented at *k*, over the deflector-cap, thus maintaining the cap upon the spindle. It will be understood that the construction of spreader represented in Figs. 2 and 3 may be made of malleable iron and that no soldered joints are used in its construction or employed in uniting its parts. Great difficulty has been experienced heretofore in obtaining the proper adjustment of the deflector-cap and deflector-ring with relation to each other. In accordance with my invention I may loosely seat the ring in place and secure the deflector-cap *H* in place in the manner described, and the ring will then be united to the other parts of the spreader. If it be found upon test that an adjustment of the ring with relation to the deflector-cap is necessary, this adjustment can be accomplished by merely filing away a portion of the beveled supporting or centering portions of the supporting-arms *f*, so that the requisite adjustment of the parts can be readily attained without disconnecting the parts. By reason of the fact that I am enabled to make this spreader of malleable iron it will be readily understood that a stronger and better construction can be provided at less expense than in constructions which employ sheet-metal spreaders struck up of several pieces and united by solder. There is no liability of the parts of the spreader in my construction being deranged by the action of the heat thereon.

In Figs. 4, 5, and 6 I have illustrated a modified form of spreader embodying my invention. In this construction arms *f* are provided which, like those shown in the former construction, are apertured, as indicated at *h*, so as to provide bearings *i*, and the arms are provided with beveled centering-supports *j*. These arms *f* are formed integral with a central hollow spindle *g*, which is apertured

near its lower end, as indicated at *l*, and is open at its upper end, as indicated at *m*, for the free passage of air therethrough. Seated upon a suitable circumferential bearing-shoulder *n* is a deflector-cap *H*, which is provided with depending lugs *o*, that bear upon the circumferential flange *n* on the hollow spindle *g*. Bearing upon the deflector-cap *H* is a perforated securing-cap *I*, through which passes a bolt *K*, provided with suitable securing means—such, for instance, as the nut *p*—which unites the securing-cap *I* and deflector-cap *H* to the central spindle, and thereby prevents the deflector-ring *G* from being disconnected from the other parts of the spreader. There are no parts of the construction illustrated in Figs. 4, 5, and 6 which need to be turned in order to secure the parts together, and I am therefore enabled to make the separate parts of cast-iron, which greatly reduces the cost of manufacture and enables me to turn these spreaders out in large quantities without the employment of the skilled labor ordinarily employed and rendered necessary of employment by the use of other spreaders which require nice adjustment of the parts to render them effective. By constructing the spreaders shown and described with a central passage through the spindle I am enabled to convey air from the draft-tube through the spindle and thereby tend to cool the spreader itself when the stove is in use.

It will be observed that the upper removable section 1 of the wick-tube is slightly larger in diameter than the deflector-cap *H* and that it can therefore be unscrewed from the lower section 2 to expose a considerable portion of the wick without removing or in any way interfering with the spreader.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In an oil-stove, the combination of a wick-tube, a draft-tube contained within said wick-tube and a spreader supported within said draft-tube, said spreader comprising supporting-arms adapted to be supported within the draft-tube, a deflector-cap secured to said supporting-arms and an intermediate loose deflector-ring between said deflector-cap and the supporting-arms.

2. In an oil-stove, the combination of a wick-tube, a draft-tube contained within said wick-tube and a spreader supported within said draft-tube, said spreader comprising a central spindle, supporting-arms formed integral with said spindle and adapted to be supported within the draft-tube, a deflector-cap secured to said spindle and an intermediate loose deflector-ring between said deflector-cap and the supporting-arms, said deflector-ring being loosely supported upon the supporting-arms.

3. In an oil-stove, the combination of a wick-tube, a draft-tube contained within said wick-tube and a spreader supported within said draft-tube, said spreader comprising supporting-arms adapted to be supported within the

draft-tube, a deflector-cap removably secured to said supporting-arms and an intermediate loose deflector-ring between said deflector-cap and the supporting-arms, whereby the loose deflector-ring is united to the other parts of the spreader when the deflector-cap is secured in place and may be disconnected therefrom when the deflector-cap is removed.

4. In an oil-stove, the combination of a wick-tube, a draft-tube contained within said wick-tube and a spreader supported within said draft-tube, said spreader comprising a central hollow spindle, supporting-arms formed integral with said hollow spindle and adapted to be supported within the draft-tube, a deflector-cap removably secured to the hollow spindle by a bolt which passes therethrough and an intermediate loose deflector-ring between said deflector-cap and the supporting-arms, whereby the loose deflector-ring is united to the other parts of the spreader when the deflector-cap is secured in place by the bolt and may be disconnected therefrom when the deflector-cap is removed.

5. In an oil-stove, the combination of a wick-tube, a draft-tube contained within said wick-tube and a spreader removably supported within said draft-tube, said spreader comprising a central hollow spindle open at or near each end for the free passage of air therethrough, supporting and deflecting arms formed integral with said hollow spindle, a

deflector-cap secured to said spindle, said cap having an opening therethrough which communicates with the opening in the hollow spindle and an intermediate loose deflector-ring between said deflector-cap and the supporting-arms, said ring being supported upon centering means carried by the supporting-arms.

6. In an oil-stove, the combination of a wick-tube, a draft-tube contained within said wick-tube and provided with spreader-supporting means and a spreader removably supported by the supporting means on said draft-tube and comprising a central hollow spindle open at or near each end for the free passage of air therethrough, supporting and deflecting arms formed integral with said hollow spindle and each of which is adapted to contact with the draft-tube at a plurality of points, a deflector-cap removably secured to said spindle, said cap having an opening therethrough which communicates with the opening in the hollow spindle and an intermediate loose deflector-ring between said deflector-cap and the supporting-arms, said ring being supported upon beveled portions formed upon the supporting-arms.

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Witnesses:

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