

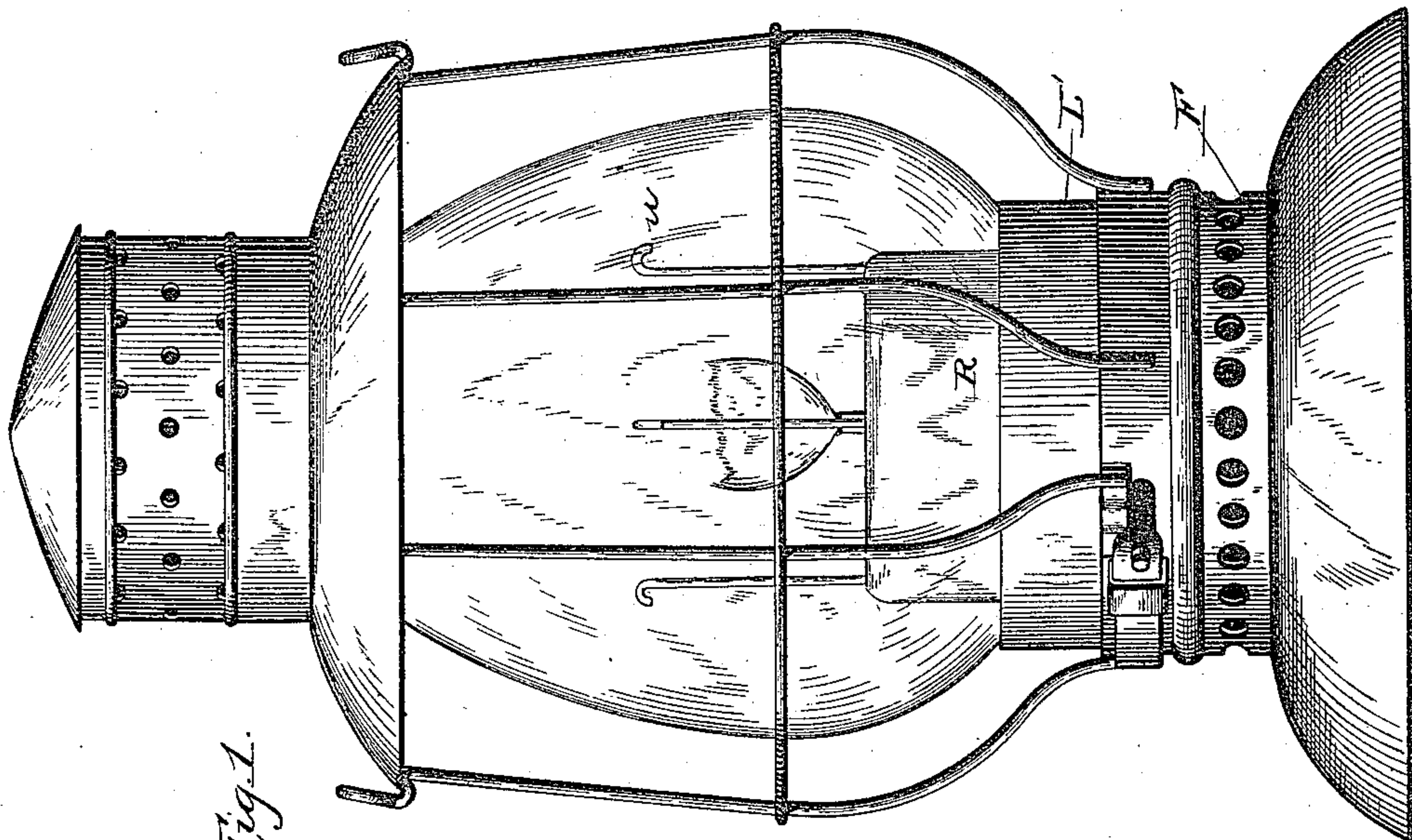
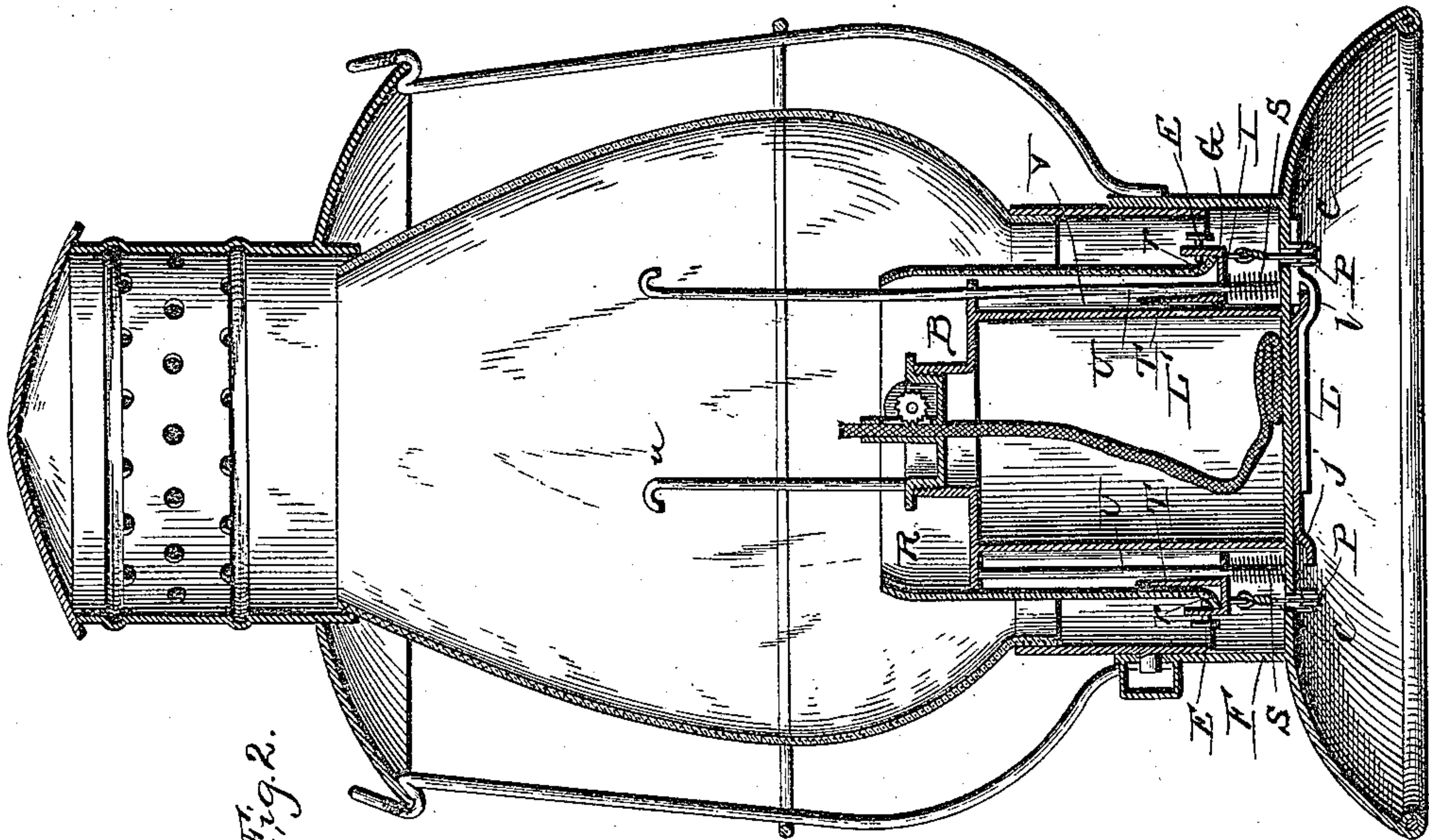
(No Model.)

2 Sheets—Sheet 1.

G. J. A. ZIMMER.
SIGNAL LANTERN.

No. 441,348.

Patented Nov. 25, 1890.



Witnesses

J. L. Curand

Inventor

Geo. J. A. Zimmer

By *his* Attorneys,

N. L. Gollamer

Chas. Snow & Co.

(No Model.)

2 Sheets—Sheet 2.

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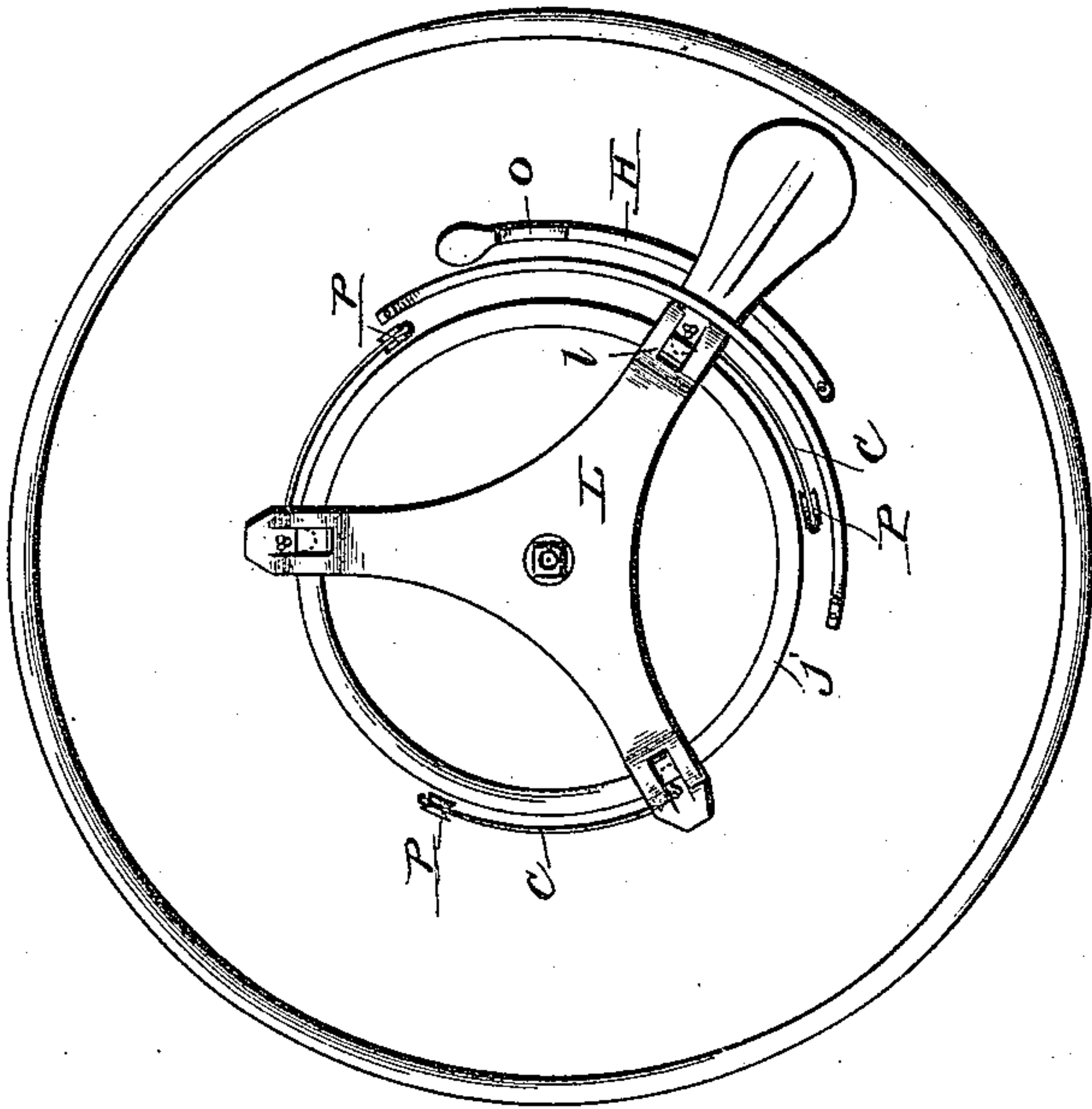


Fig. 4.



Fig. 6.

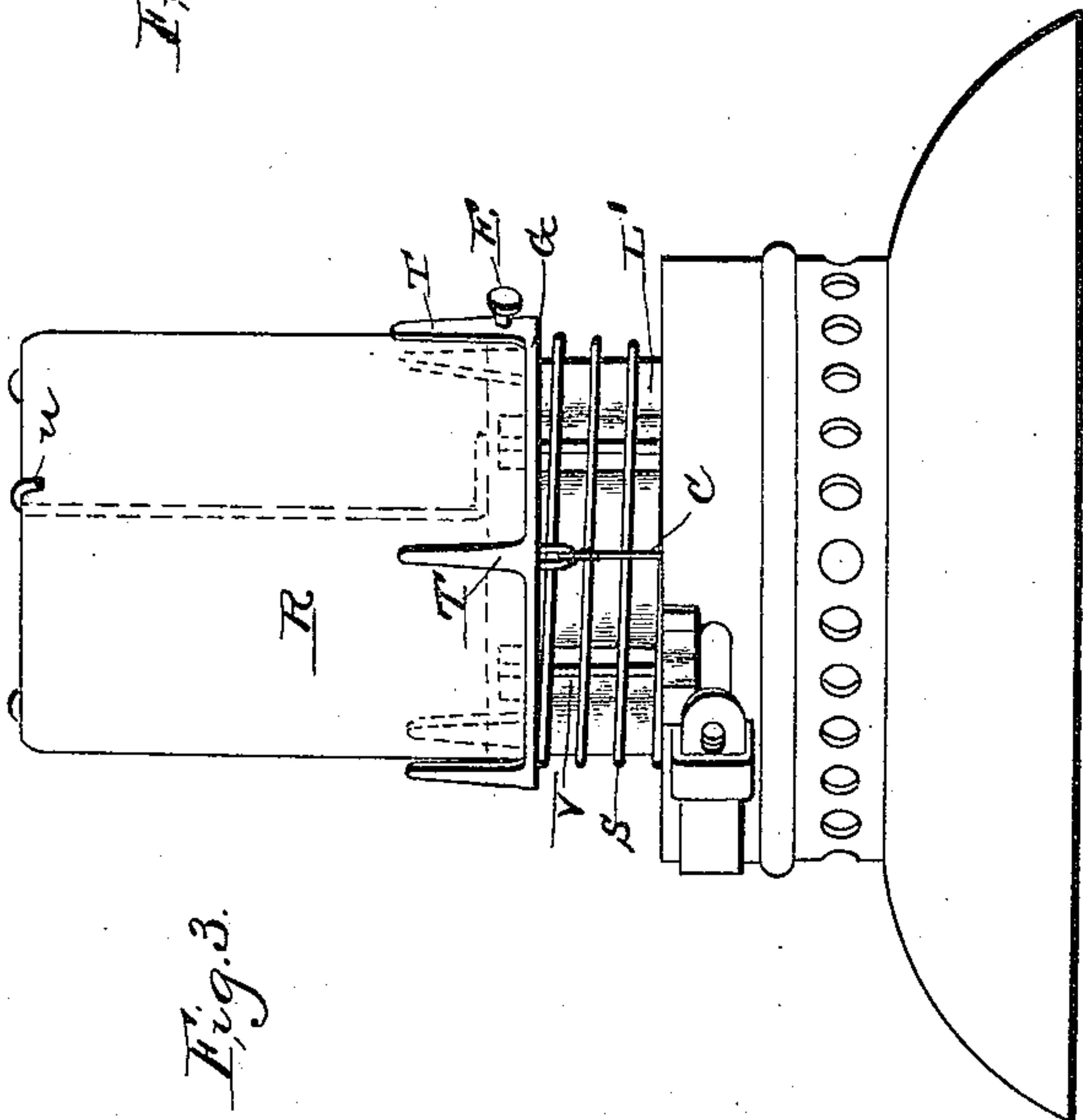


Fig. 3.

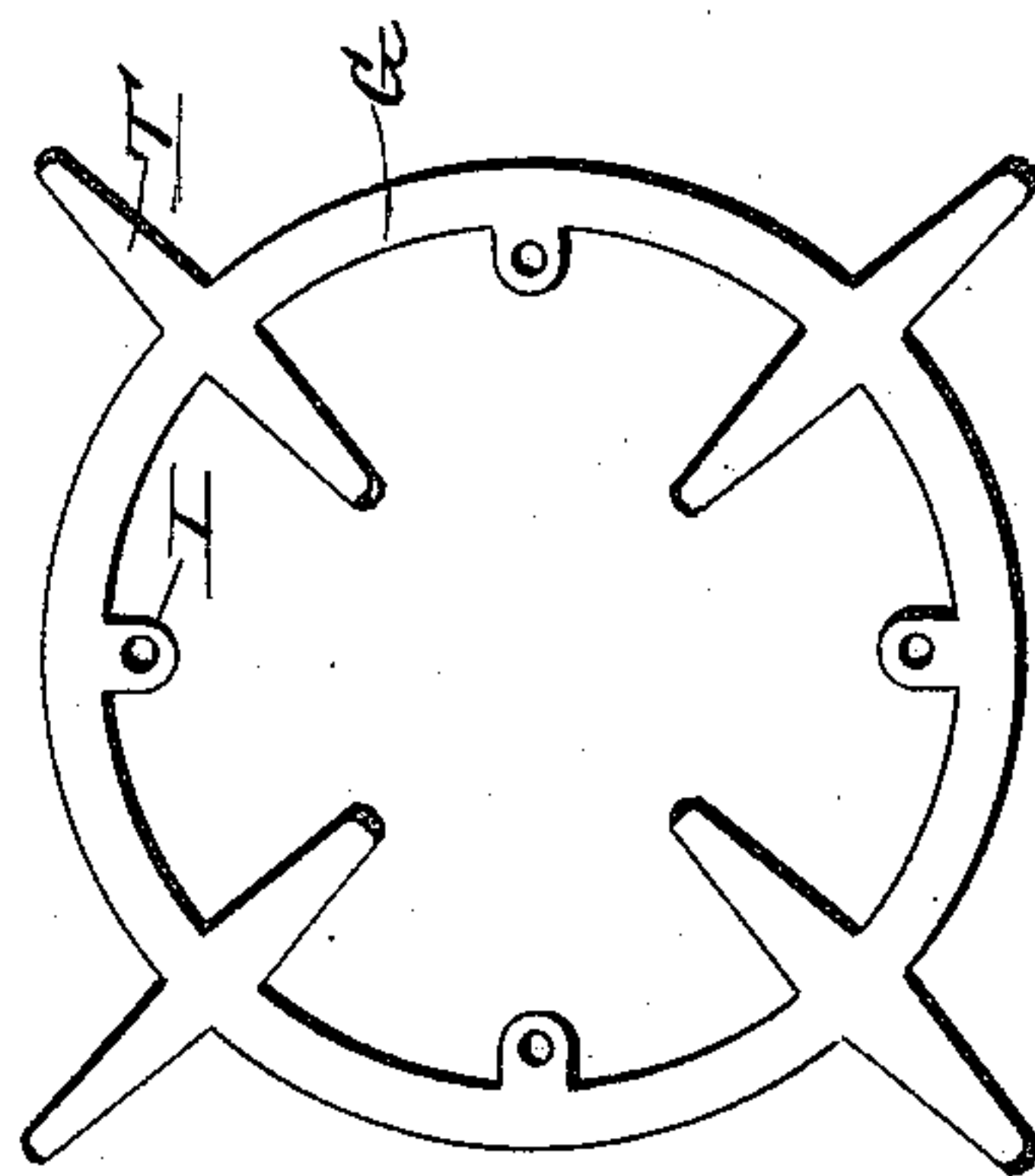


Fig. 5.

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UNITED STATES PATENT OFFICE.

GEORGE J. A. ZIMMER, OF ELKHART, INDIANA.

SIGNAL-LANTERN.

SPECIFICATION forming part of Letters Patent No. 441,348, dated November 25, 1890.

Application filed May 2, 1890. Serial No. 350,362. (No model.)

To all whom it may concern:

Be it known that I, GEORGE J. A. ZIMMER, a citizen of the United States, residing at Elkhart, in the county of Elkhart and State of Indiana, have invented a new and useful Signal-Lantern, of which the following is a specification.

This invention relates to lanterns, and more especially to that class known as "signal-lanterns;" and the object of the present invention is to improve the construction of lanterns of this general character heretofore made.

To this end the invention consists of the specific details hereinafter more fully set forth, and illustrated in the drawings, in which—

Figure 1 is a side elevation, and Fig. 2 a central vertical section, of a complete lantern embodying my invention. Fig. 3 is a side elevation of the lamp removed, the red glass being shown in its elevated position. Fig. 4 is a bottom plan of the lantern. Fig. 5 is a plan of the blank from which the red globe-supporting frame is made. Fig. 6 is a detail in side elevation of the latch for holding the shifting-lever in position.

Referring to the said drawings, the letter L' designates the lamp-body or reservoir containing the oil, and B is the burner thereof, the said lamp being detachably secured to the base or lantern frame F, carrying the white globe or chimney, as is usual in railroad-lanterns. The said lamp-body is made somewhat smaller than the base of the lantern-frame, whereby an open space is formed around it, and in this space reciprocates vertically a globe-supporting frame G, which has guide-eyes I, sliding on upright rods U, carried by the lamp. Mounted upon this frame G is a red globe R, which when in its lowermost position exposes the flame and causes the lantern to give a white light, but which when raised extends upwardly above the flame and causes a red light to be given out by the lantern, all as is common in devices of this character heretofore made.

Coming now to the present invention, the globe-supporting frame G is stamped from a piece of sheet metal, as shown in Fig. 5, which stamping leaves tongues T extending upwardly and adapted to stand just inside and outside the red globe R. Set-screws E may pass through holes in certain of these tongues and

may engage a flange *r* at the lower end of the red globe R, whereby said globe will be prevented from displacement from the support. The said upright rods U extend through a top flange on the lamp-body and above the top of the lamp L and have hooked upper ends *u*, whereby when the red globe R is raised to its highest position its upper end will engage said hooks, and it will be thereby firmly held.

The body of the lamp is provided with vertical grooves V, in which stand the upright rods U, and into which grooves project the eyes I of the supporting-frame G, and the latter is normally raised by a spring S, this spring being either a large spiral spring, as shown in Fig. 3, surrounding the lamp-body, or a number of small spiral springs coiled upon each rod U and seated within the grooves V below the eyes I, as shown in Fig. 2. The red globe R being carried by the frame G, it will be understood that the spring S holds said globe normally in its raised position, Fig. 3, and if the globe be drawn downwardly it will be seated in the annular opening between the lamp-body and the surrounding base of the frame. To effect this downward movement of the supporting-frame I provide chains or cords C—preferably three in number—which are connected to the supporting-frame G, pass thence downwardly outside the spring S, and preferably over pulleys P in the base of the frame F, and are connected at their lower ends to a three-way lever L, centrally pivoted to the bottom of the frame F, as shown in Fig. 4. The three feet of this lever are curved, as shown at *l*, to span a ridge *j*, which stands just inside the pulleys P, so that when the lever is turned the chains C will be drawn around the outer side of this ridge, as will be understood.

H is a spring-latch secured at one end to the bottom of the frame and at its free end having an opening O, into which the operating-arm of the lever L falls when it is moved to lower the red globe, by which means the said globe will be maintained at a normal position and out of use. When it is desired to throw the red globe into use by allowing it to rise, as when a railroad employé suddenly discovers danger to a rapidly-approaching train, the catch H is depressed, which disengages the opening O from the handle of the

lever, and the spring or springs S raise the frame G and red globe R and draw upon the chains C, turning the lever L, as will be readily understood.

5 What I claim is—

1. In a signal-lantern, the combination, with the lamp-body and the vertical rods connected to the bottom thereof passing through a top flange thereof extending above the same and
10 having outwardly-hooked upper ends, of the globe-supporting frame comprising a ring surrounding said rods and having eyes engaging them below said flange and upwardly-projecting tongues on said ring, a movable
15 globe supported by said ring between the pairs of tongues, springs pressing said ring upwardly, and means for lowering it, substantially as described.

2. In a signal-lantern, the combination, with the lamp-body provided with vertical grooves 20 V in its sides, and upright rods U, standing in said grooves, of the globe-supporting frame G, surrounding said body and having inwardly-extending eyes I, sliding on said rods within said grooves, a spring S below said 25 frame, and means for drawing the frame downwardly against the tension of the spring, as and for the purpose set forth..

In testimony that I claim the foregoing as my own I have hereto affixed my signature in 30 presence of two witnesses.

GEO. J. A. ZIMMER.

Witnesses:

THOMAS KENNEDY,
A. C. LOWE.