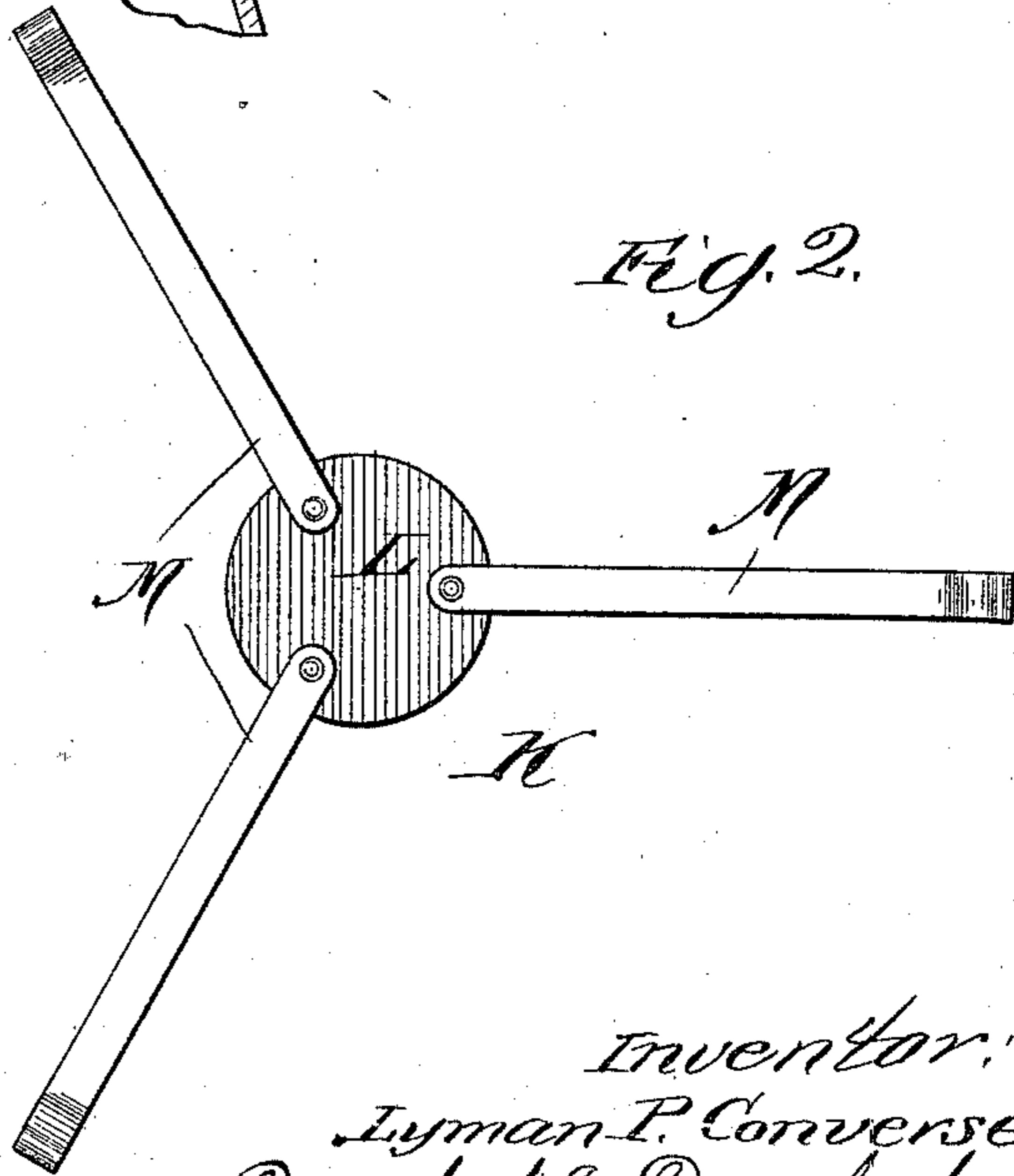
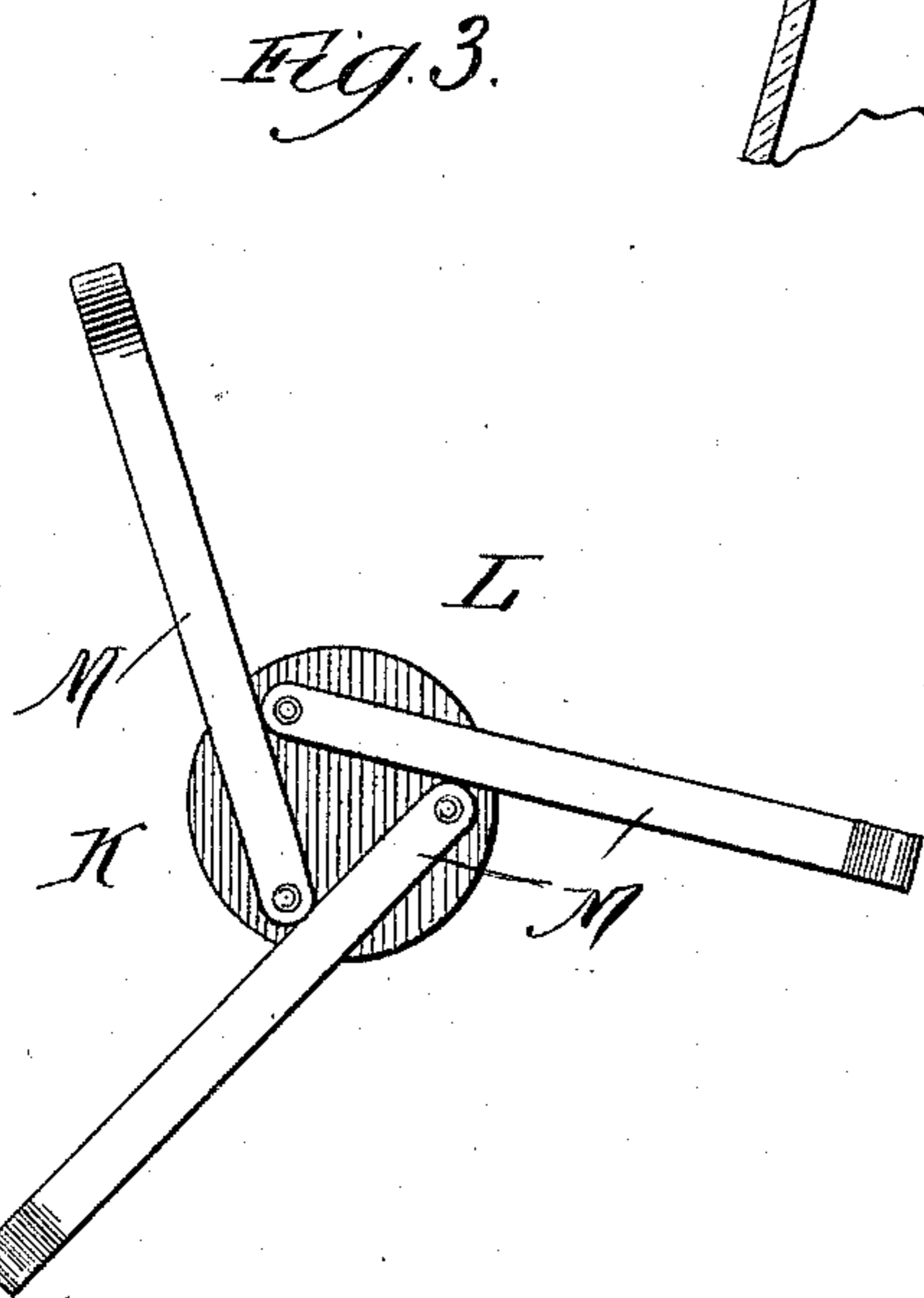
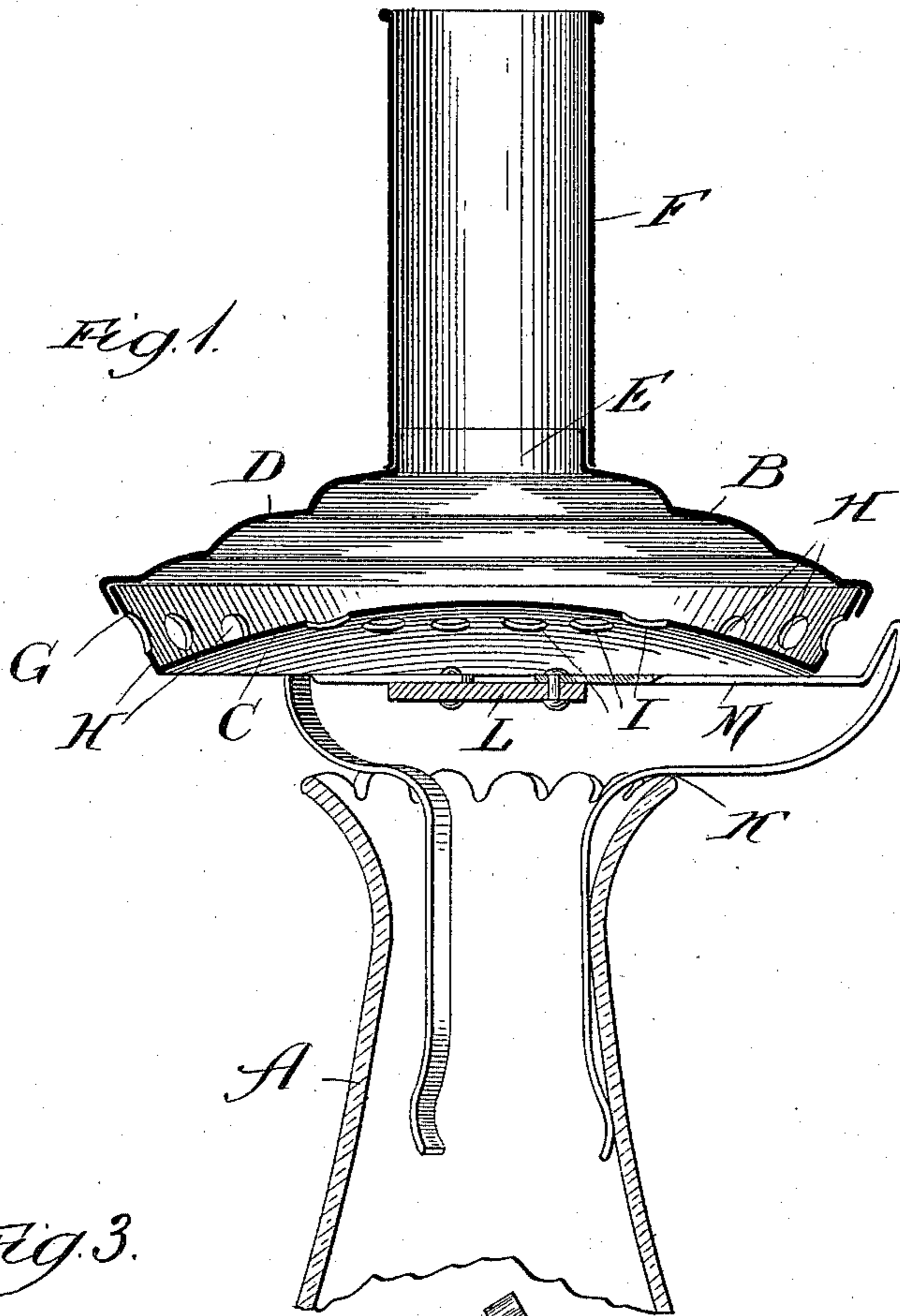


(No Model.)

L. P. CONVERSE.
HEATER FOR LAMPS.

No. 533,438.

Patented Feb. 5, 1895.



Witnesses:
E. C. Gaylord.
O. J. Timmerman.

Inventor:
Lyman P. Converse,
By *Dynumforth & Dynumforth,*
Attys.

UNITED STATES PATENT OFFICE.

LYMAN P. CONVERSE, OF CHICAGO, ILLINOIS.

HEATER FOR LAMPS.

SPECIFICATION forming part of Letters Patent No. 533,438, dated February 5, 1895.

Application filed October 18, 1893. Serial No. 488,460. (No model.)

To all whom it may concern:

Be it known that I, LYMAN P. CONVERSE, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Heaters for Lamps, of which the following is a specification.

My invention relates to an improvement in heaters of the kind adapted to be used with lamps whether oil, gas or other kinds, which are usually provided with a chimney; and the object of my invention is to produce a device which may be supported above the lamp upon the chimney, and through which a circulation of heated air into the room may be furnished.

My invention consists in a heater of the nature described, comprising a hollow or shell-like body adapted to rest upon the chimney top, having central apertures for the products of combustion and lateral apertures for the air from the room, and a central outlet from the upper side through which the heated air and the products of combustion completely consumed may pass.

My invention consists further in a spider frame adapted to be supported in the chimney and to receive and support the heater, said spider frame being made of a construction to enable it to fit chimneys of different dimensions.

My invention consists in the details of construction and combinations of parts, all as hereinafter more fully set forth.

In the drawings—Figure 1 is a vertical central section taken through a lamp chimney, spider and heater involving my construction. Fig. 2 is a plan view of the spider distended to its largest dimension; and Fig. 3, a similar view of the spider showing its smallest dimension.

A represents the lamp chimney of conventional construction.

The heater comprises a shell B having the concave base C and concave top D presenting the aperture E from which may extend upward a chimney or pipe F. The concave base C is bent up at the sides, as shown at G, and in said sides is provided throughout the circumference with perforations H. The base C is provided with an annular series of perforations I, in a line substantially above the chimney opening. Aside from affording a

heating surface, the base C also serves to deflect the products of combustion which fail to pass through the perforations I, thus greatly increasing the heating capacity of the lamp.

The spider K comprises a central plate L upon pivotal bolts through which are supported the spider arms M. Each of these arms is bent and curved so as to present a horizontal ledge or surface upon which the heater B may rest, and downward extending legs adapted to enter the chimney top. In the drawings the spider is shown curved upward at the outer bend to receive the lateral edges of the heater, which is thus prevented from displacement; but this construction is not essential; any means by which the position of the heater with relation to the chimney may be maintained being available. I have constructed some heaters in which a central pin entering a central aperture has been employed connecting the heater and spider; and in some cases no means to prevent shifting of the heater is necessary.

As will be observed by a comparison of Figs. 2 and 3 the spider-arms being pivotally connected to the plate L and located at three or more points upon the plate they may by moving them upon their pivots be caused to present a greater or less radial measurement from the center of the plate. The greatest measurement is obtained when each arm is caused to project radially from the plate, while the least measurement is obtained by causing each arm to extend tangentially of the plate. The depending arms being part of the spider-arms M it is quite apparent that their relative distance from each other is increased and reduced by the prescribed movement in the arms with relation to the plate L.

In operation, the spider is first introduced into the chimney and the arms manipulated until the interior of the chimney is closely engaged, and the heater is thereupon placed on the spider. The flame of the lamp rises up to and heats the lower concave side of the heater, the products of combustion passing through the openings I and out through the chimney F. Air entering the lateral openings H becomes heated by contact with the bottom of the heater and with the products of combustion passing through the same and serves to produce a draft sufficiently strong to improve

the light and at the same time serves to assist the destruction of the products of combustion to prevent their entering the room, the air thus heated entering and warming the room.

5 What I claim as new, and desire to secure by Letters Patent, is—

1. A heater for lamps, comprising a shell having a concave bottom and convex top provided with perforations in the middle part of
10 the bottom, said bottom affording a heating surface and serving also as a deflector, perforations on the side and central outlet or chimney in the top, and means for supporting said heater above a lamp chimney substantially as
15 described.

2. The combination with a heater, of a spider having arms presenting a horizontal surface to support the heater and downward extending legs to enter the chimney, said arms
20 being secured to a common plate by a pivotal connection, substantially as described.

3. In combination with a heater, a support therefor comprising a spider having three or

more arms, each arm presenting a horizontal surface to support the heater and downward
25 depending legs, said arms being connected to a common plate each by a pivotal connection at a different point on said plate, whereby the arms may be moved from a radial to a tangential position and the diameter of the spider
30 varied, substantially as described.

4. The support for a lamp heater, comprising a plate L and three or more bent arms M, each arm presenting a surface parallel to the
35 plate, a leg extending downward from the plate and a curvature at its outermost radial point serving as a lateral stop or flange, said arms being pivoted to pins arranged near the circumference of the plate, whereby each arm
40 may be moved to present a line radial to the plate or tangential thereof, substantially as and for the purpose set forth.

LYMAN P. CONVERSE.

In presence of—

M. J. FROST,

W. N. WILLIAMS.