

No. 871,141.

PATENTED NOV. 19, 1907.

K. PANK.

APPARATUS FOR AUTOMATICALLY LIGHTING GAS LAMPS.

APPLICATION FILED JULY 25, 1906. RENEWED SEPT. 26, 1907.

Fig. 1.

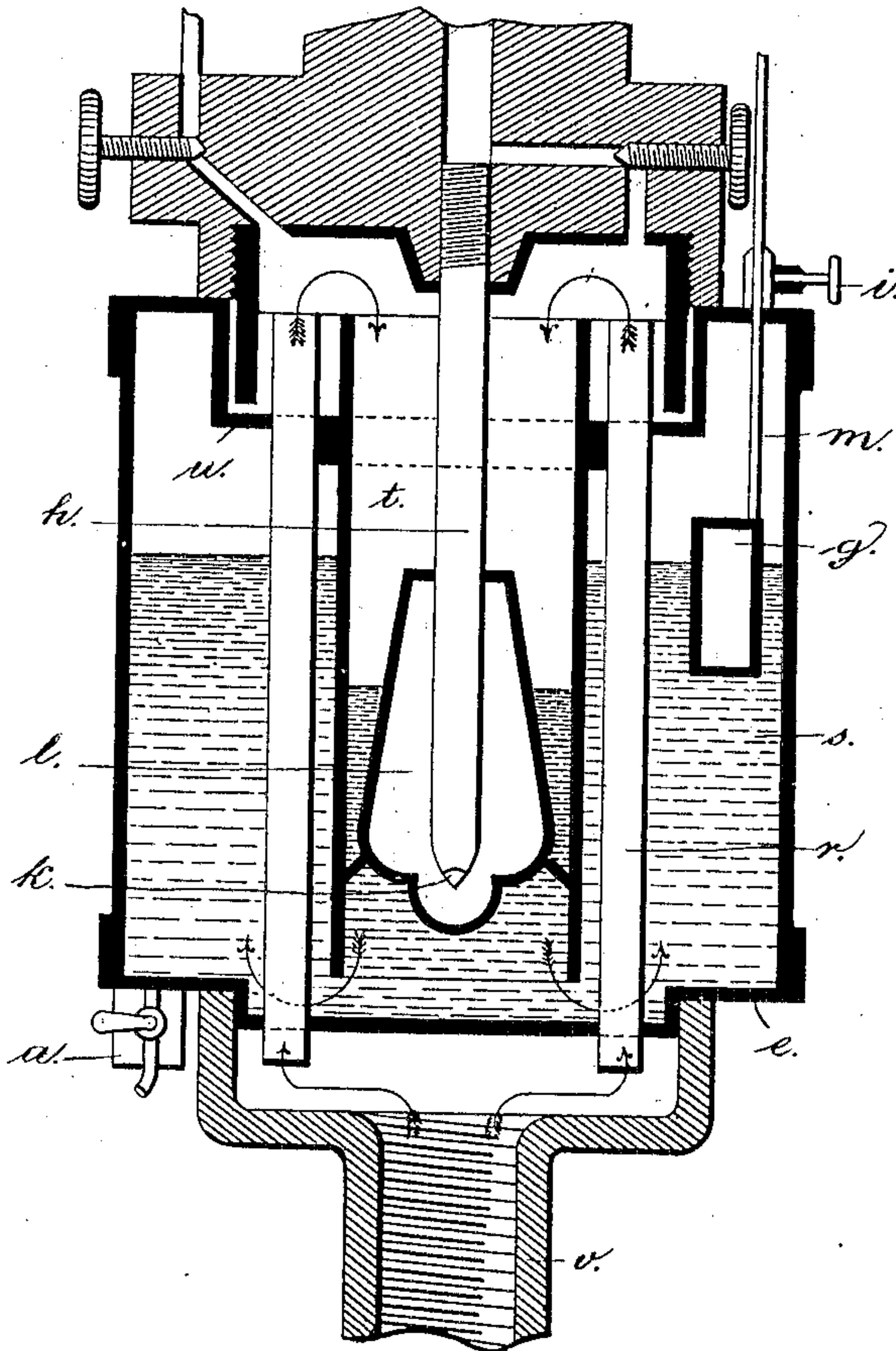
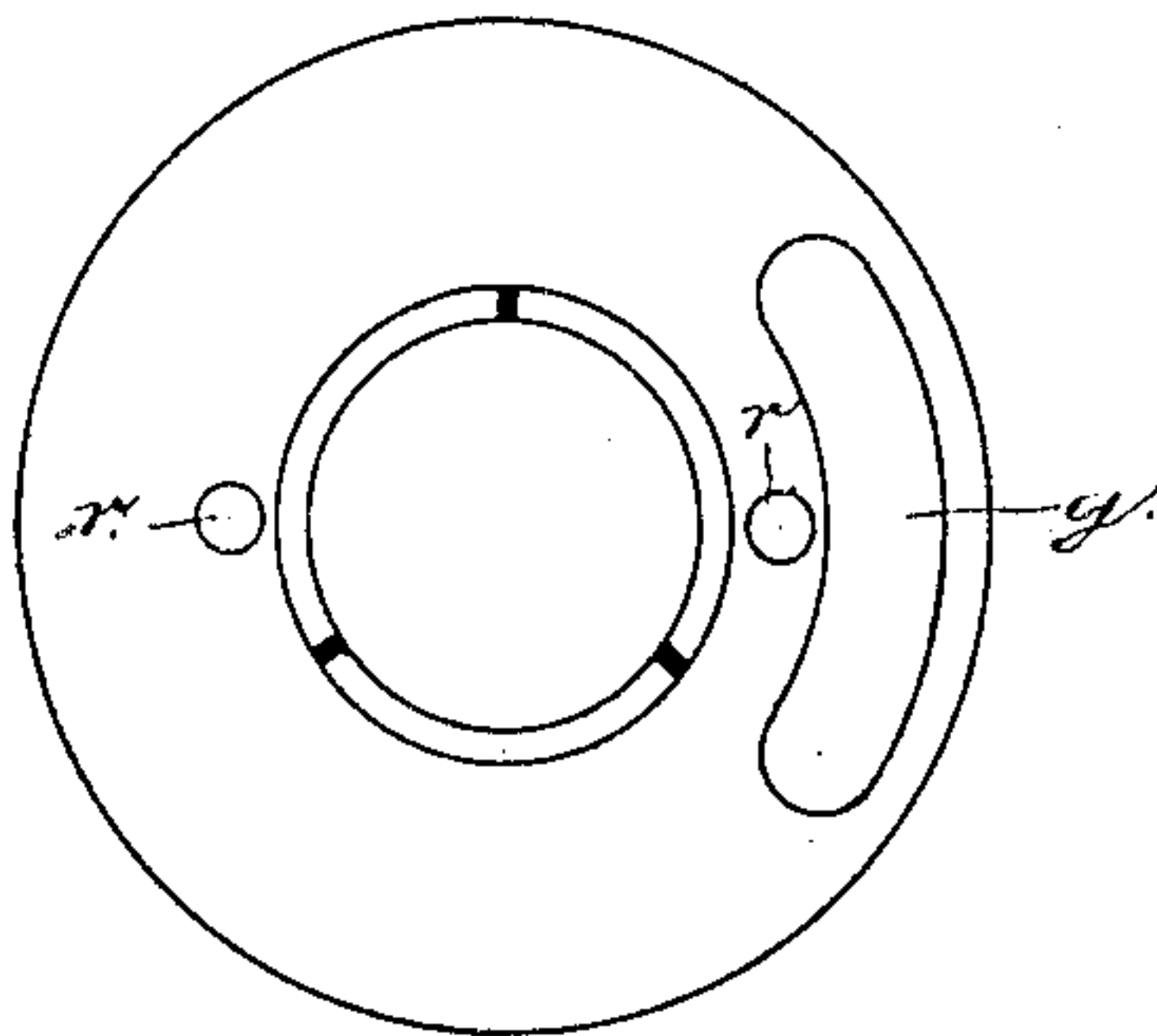


Fig. 2.



Witnesses:

Milton C. Lowrey
H. C. Cretchett.

Inventor:

Karl Pank

By H. C. Cretchett.
Attorneys

UNITED STATES PATENT OFFICE.

KARL PANK, OF KÖNIGS WUSTERHAUSEN, GERMANY.

APPARATUS FOR AUTOMATICALLY LIGHTING GAS-LAMPS.

No. 871,141.

Specification of Letters Patent.

Patented Nov. 19, 1907.

Application filed July 25, 1906, Serial No. 327,673. Renewed September 26, 1907. Serial No. 394,713.

To all whom it may concern:

Be it known that I, KARL PANK, a subject of the King of Prussia, residing at Königs Wusterhausen, Potsdamerstrasse 21, have invented certain new and useful Improvements in or Connected with Apparatus for Automatically Lighting Gas - Lamps, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention has reference to apparatus for automatically lighting gas lamps from a distance, of the type shown respectively in vertical and horizontal section in Figures 1 and 2 of the accompanying drawings.

In apparatus of the type in question the gas passes from the supply pipe *v* to an inner chamber *t* through pipes *r* that pass through the bottom and cover of an outer chamber *s*; and the chamber *t* is mounted on the under side of the cover of the chamber *s* in such manner as to bring the liquid contained in these chambers into communication with each other.

In gas-lighting apparatus of the type in question as heretofore constructed, the liquid, which usually consists of glycerin is, through the change of pressure in the gas, forced from the chamber *t* into the annular chamber *s*; while, simultaneously with the lowering of the level of the liquid in the chamber *t* the float *l* descends, and thus opens the orifice of the burner tube *h*. The adjustment of the depth to which the burner tube *h* is immersed, is as present effected by so regulating the quantity of glycerin contained in the chambers *s* and *t* that the change of level due to the pressure variation of the gas suffices so to raise or lower the float *l* together with its mercury seal as to open or close the orifice of the stationary burner pipe *h*.

In Patent No. 809814 of 1905 the difference between the level of the liquid in the mercury seal *k* and the level of the extremity of the burner tube *h* is adjusted by means of a screw device on the burner tube and, if necessary, by the withdrawal of superfluous glycerin.

The operation of suitably adjusting the depth to which the pipe *h* is immersed, in the mercury seal *k* by increasing or diminishing the quantity of glycerin is, however, a slow and tedious one; and this invention has for object to provide for effecting the adjust-

ment in question, means both for facilitating the adjustment in question, and for rendering it more accurate. This adjustment is, in accordance with this invention, effected by means of a plunger *g* which is partially immersed in the glycerin contained in the chamber *s*, and the extent of immersion of which can be varied by loosening the set-screw *i*, raising or lowering the plunger by means of its handle *m*; until a suitable adjustment has been made and then again tightening the screw *i*. The level of the liquid in the outer and inner chamber is thus respectively raised and lowered or vice versa so as to effect the desired adjustment.

The apparatus can by this means be adapted to be operated by a very small difference of gas pressure, such, for example, as 5 mm. of water.

What I claim is:—

1. Apparatus for automatically lighting gas lamps comprising a gas supply inlet; an outer chamber furnished with a bottom and a cover and adapted to contain liquid; an inner chamber projecting downwardly from said cover and likewise adapted to contain liquid; a pipe or pipes that pass through said bottom and cover and that connect said gas inlet with the interior of said inner chamber; within said inner chamber a receptacle for a liquid seal; a burner tube provided at its lower end with an orifice adapted to be sealed by said seal; a plunger adjustably mounted within said outer chamber and adapted to be immersed a greater or less extent in said liquid; and upon last mentioned chamber, means for securing said plunger in position when the desired adjustment has been effected.

2. In apparatus for automatically lighting gas lamps through variation of gas pressure, a float receptacle containing a liquid seal; a chamber or chambers containing liquid wherein said float receptacle is floated; an adjustable plunger adapted to be immersed to a greater or less extent in last mentioned liquid to vary the level thereof; and means for adjusting said plunger and for securing it in position when adjusted.

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

KARL PANK.

Witnesses:

HENRY HASPER,

WOLDEMAR HAUPT.