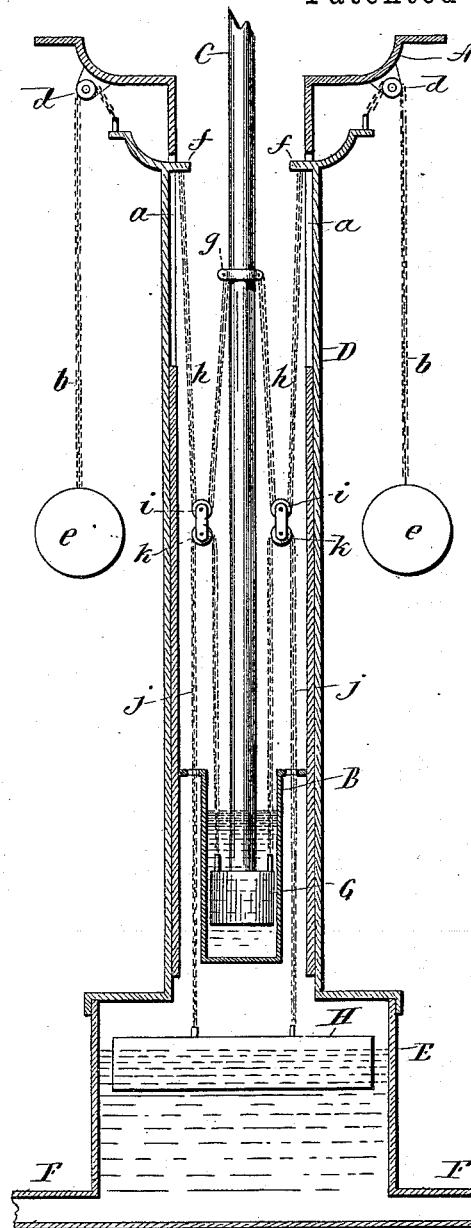


(No Model.)

F. L. EAGER.  
AUTOMATIC REGULATOR FOR CONTINUOUSLY FED EXTENSION LAMP  
FIXTURES.

No. 553,397.

Patented Jan. 21, 1896.



Witnesses.  
J. St. Shumway.  
Lillian D. Kelsey.

Frank L. Eager.  
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By Atty.  
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# UNITED STATES PATENT OFFICE.

FRANK L. EAGER, OF MERIDEN, CONNECTICUT.

AUTOMATIC REGULATOR FOR CONTINUOUSLY-FED EXTENSION-LAMP FIXTURES.

SPECIFICATION forming part of Letters Patent No. 553,397, dated January 21, 1896.

Application filed May 6, 1895. Serial No. 548,276. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK L. EAGER, of Meriden, in the county of New Haven and State of Connecticut, have invented a new  
5 Automatic Regulator for Continuously-Fed Extension-Lamp Fixtures; and I do hereby declare the following, when taken in connection with the accompanying drawing, and the letters of reference marked thereon, to be a  
10 full, clear, and exact description of the same, and which said drawing constitutes part of this specification, and represents a vertical section of a lamp-fixture, illustrating the application of my controlling devices thereto.

15 This invention relates to an improvement in automatic regulators for continuously-fed lamps, and particularly to lamps which are arranged in extension-fixtures, the object being to so arrange the regulator that it will be  
20 in position to operate in whatever elevation the fount may be; and it consists in the construction as hereinafter described, and particularly recited in the claim.

To illustrate my invention I will describe  
25 it as applied to extension-chandeliers.

As shown in the figure, A is a stationary tube secured to a ceiling, provided near its lower end with a cup B, and near its upper  
30 end with slots *a a*.

30 C is a feed-pipe which extends from the source of supply down through the stationary tube A and into the cup B, which is partially filled with mercury or other liquid having a greater specific gravity than the oil fed  
35 through the pipe C.

D is a telescopic tube which slides upon the outside of the tube A, and is suspended by chains *b b*, which extend from the flange *c* at the upper end of the tube D, over pulleys *d d*,  
40 to the ends of which chains are secured weights *e e*. To the lower end of the tube D the fount E is secured in the usual manner, and from which pipes F F, more or less in number, extend to the burners. (Not shown.)  
45 At the upper end of the tube D are fingers *f f*, which extend inward through the slots *a* in the feed-tube A.

To the pipe C, near its upper end, a collar *g* is permanently secured, and from this collar  
50 chains *h* extend downward through the upper rollers *i i* of double take-up pulleys, thence upward into engagement with the fingers *f f*. Around the lower end of the pipe C is a

plunger G, adapted to fit within the cup B. This plunger is connected with a float H, 55 adapted for vertical movement in the fount E, by chains *j j*, which extend upward from the said plunger over the lower rollers *k k* of the double take-up pulleys, down into engagement with the said float. 60

In the position shown in the figure, the device operates as follows: Oil being supplied through the feed-pipe C enters the cup and overflows therefrom into the fount F. As the oil rises in the fount, the float H is raised and the plunger G, which is connected thereto by the chains *j*, falls into the mercury, displacing the same and increasing its depth in the cup until the pressure overcomes the force of the oil in the pipe C and the feeding is stopped. 70 As the oil is exhausted from the fount, the float falls and raises the plunger out of the cup, again permitting the oil to flow. If the chandelier be drawn down, the double pulleys *i k* are necessarily lowered, and as the fount 75 moves with the chandelier the float necessarily also moves and takes up the slack which would occur in the chains *J* by the lowering of the said pulleys. Consequently the plunger G will still be regulated by the float in the 80 fount in whatever position of adjustment the chandelier may be placed.

Having fully described my invention, what I claim, and desire to secure by Letters Patent, is— 85

In an automatic regulator for continuously fed extension lamp-fixtures, the combination with a fixed pipe and a telescopic tube which opens into the reservoir, of flexible connections between said fixed pipe and tube, means 90 for regulating the supply of oil through said pipe, a float in said reservoir, and connections between said regulator and the float, and one or more take-up pulleys with which said connections are engaged, and whereby 95 proper tension is maintained, so that the said float is always in position to operate said regulator, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing 100 witnesses.

FRANK L. EAGER.

Witnesses:

W. H. CATLIN,  
JOHN G. NAGEL.