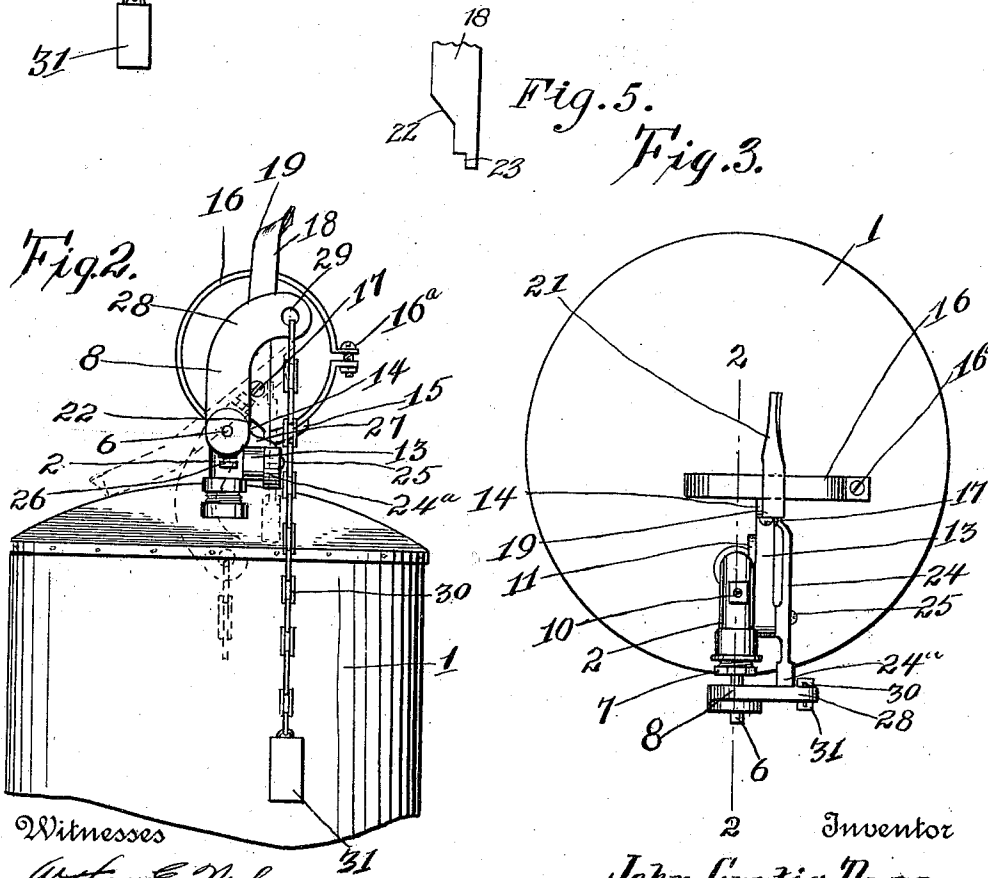
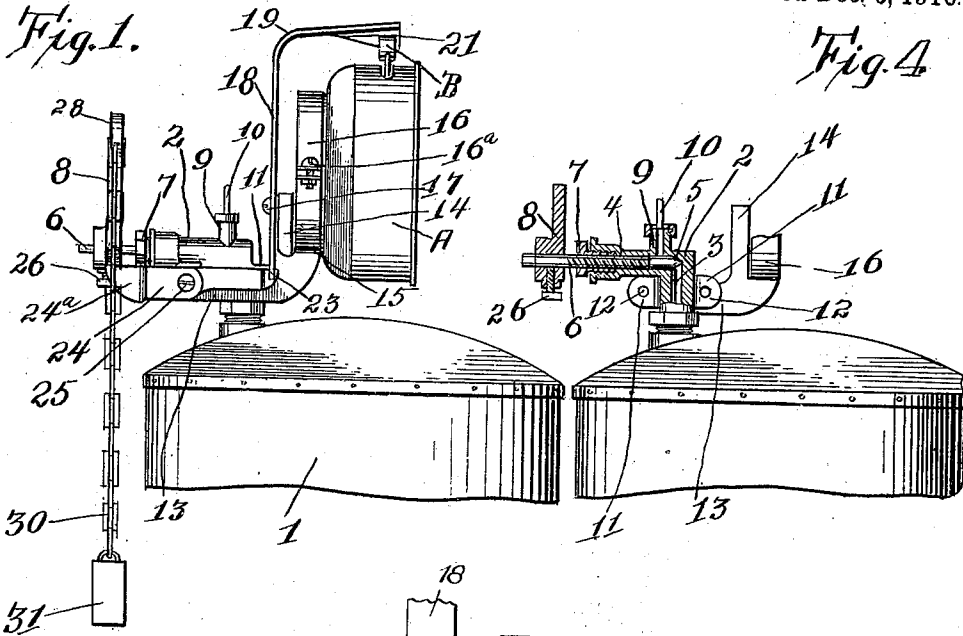


J. C. DUPEE.
AUTOMATIC CUT-OFF.
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977,858.

Patented Dec. 6, 1910.



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AUTOMATIC CUT-OFF.

977,858.

Specification of Letters Patent.

Patented Dec. 6, 1910.

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To all whom it may concern:

Be it known that I, JOHN CURTIS DUPEE, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Automatic Cut-Offs, of which the following is a specification.

This invention relates to time controlled mechanism and more particularly to a device of that kind designed especially for use in connection with gasoline street lighting systems, but is also applicable to any house or other lighting system where it is desired to extinguish the lights at a predetermined time.

In gasoline lighting systems it is customary to provide a storage tank in which the gas from the generator is stored, and from which the service pipes are fed, and one of the objects of this invention comprehends the production of a device of the above character in which all of the operative parts thereof will be supported directly above the storage tank to the casing of the outlet valve with which said tank is provided, whereby any of the parts may be easily reached in case of repairs, and also the re-winding of the clock may be readily accomplished.

A further object of the invention resides in a device of the kind having only a few operative parts, thus reducing the liability of the same becoming out of order.

In the accompanying drawings, which form a part of this specification and in which like reference numerals indicate corresponding parts throughout the several views—Figure 1 is a side elevation of the upper portion of a storage tank provided with the invention complete; Fig. 2 is a front elevation thereof, with the clock removed and showing, in dotted lines, the operative parts released to cut off the flow of gas; Fig. 3 is a top plan view, and Fig. 4 is a fragmentary sectional view taken on the line 2—2 of Fig. 3. Fig. 5 is a detail.

Referring specifically to the drawings 1 denotes a storage tank in which the gas is stored, and which may be located in any conventional place. Screwed into the top of the tank, near the edge thereof is the lower threaded end of the angular valve casing 2. As will be seen in the drawing the horizontal portion of said valve casing 2

extends outwardly toward the edge of the tank, for a purpose to be hereinafter described. Formed centrally through the vertical portion of the valve casing 2 is a bore or port 3 which establishes communication between the interior of the tank 1 and the service pipe nipple, to be hereinafter described. Formed centrally through the horizontal portion of the valve casing in a threaded bore 4 adapted to meet the port 3 at its upper end, at which point its walls are beveled to form a seat for the needle point 5 of the threaded valve stem 6. The threads on the said stem as well as in the bore 4 are of such a pitch that a half turn of the valve stem 6 will completely open or close the valve. The stem 6 passes through a suitable stuffing box 7 and extends outwardly a short distance beyond the edge of the tank 1, where it is provided with a valve operating lever 8, to be hereinafter referred to. A short nipple 9 provided with a central port extends upwardly from the upper side of the valve casing 2, to provide for the attachment of the supply pipe 10.

As shown clearly in Fig. 4, the vertical portion of the valve casing 2 is provided with ears 11 to which the operative parts of the invention are supported. Fastened to said ears by means of screws 12 is a stationary horizontal arm 13, which has formed on its rear end an upstanding extension 14 and a wing 15 to which latter is fastened by any suitable means the adjustable band 16 adapted to be clamped, by tightening the screw 16^a, around the clock, indicated at A, so that its face will be flush with the inner edge of said band. Obviously by loosening the clamping screw 16^a the clock may be readily removed from the band for any reason without interfering with any of the other parts of the device.

Pivotally connected by means of the pin 17 to the upper end of the aforesaid extension 14 is a trip arm 18 which extends upwardly in front of the clock and has its upper end offset, as at 19, to bring the same parallel with the side of the clock and in position to be struck by the alarm hammer B when the same is set in motion by the usual alarm mechanism (not shown). Said offset portion is twisted as at 21 so as to present its flat face to the said hammer B. The lower end of the trip arm 18 is cut away as indicated at 22, to permit the same

to move above the arm 13, and has its extreme lower end provided with a notch 23 in which is adapted to rest, when in normal position, the inner light end of the weighted lever 24, which is pivoted by means of a pin 25 to the outer or front end of the arm 13. As will be noted by referring to the drawings the outer end of said lever is thickened as at 24^a to form a weight so that when its inner end is released its weighted end will drop.

The valve operating arm 8, above referred to, is fixed to the projecting end of the valve stem 6 by means of a set screw 26, at a point thereon which will bring it just beyond the side of the tank 1. The lower end or hub of said arm 8 is provided with a finger or projection 27 which extends at right angle thereto and when the arm is in normal position is adapted to rest upon the upper flat surface of the outer thickened end of the lever 24. Its upper end is offset as indicated at 28, so as to bring said end beyond the center of gravity, and is provided with a hole 29 to provide for the attachment of one end of a chain 30 which has a suitable weight 31 attached to its other end.

Briefly stated, the operation of the invention is as follows: The parts are set as shown in Figs. 1 and 4 and in full lines in Fig. 2. The alarm mechanism is also set for the hour it is desired to have the lights extinguished and when said hour arrives the hammer B will strike the upper end of the trip arm 18 thereby causing the same to swing on its pivot 17 and disengage its notched end 23 from the inner end of the weighted arm 24, thus allowing the weighted end of said arm to drop. When this occurs

the operating arm 8 becomes unsupported and consequently it falls giving the valve stem 6 a half turn to seat its needle point. The weight 31 will cause the valve to seat itself with considerable force and positively prevent the escape of any gas.

I claim:

In a device of the character described, the combination of an angular valve casing having one portion thereof provided with rigid outstanding ears and with a threaded nipple for attachment to a gas tank or the like, a valve within the other portion of said casing having an exteriorly projecting stem, a curved arm upstanding from said stem and provided with a lower side projection, a weighted chain attached to the upper end of said arm, a supporting arm rigidly secured to said casing ears to extend parallel with said valved casing portion, and having an upturned end, an alarm clock having a hammer, a band clasp carried by said upturned arm-end to removably hold said clock, a trip-lever pivoted upon said upturned arm-end and provided with a wing at its upper end to engage the alarm hammer, and having a notched lower end, and a lever pivoted upon said supporting arm adjacent its opposite end, having one end engaged by said notched lower end of said trip lever, and having a weighted opposite end to receive thereon the side projection of said valve arm to prevent the same from swinging.

In testimony whereof I affix my signature, in presence of two witnesses.

JOHN CURTIS DUPEE.

Witnesses:

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