W. A. REINEKE.

REGISTER FOR CARBID LIGHTING PLANTS.

APPLICATION FILED APR. 10, 1912.

**1,054,618.**

Patented Feb. 25, 1913.

2 SHEETS—SHEET 1.

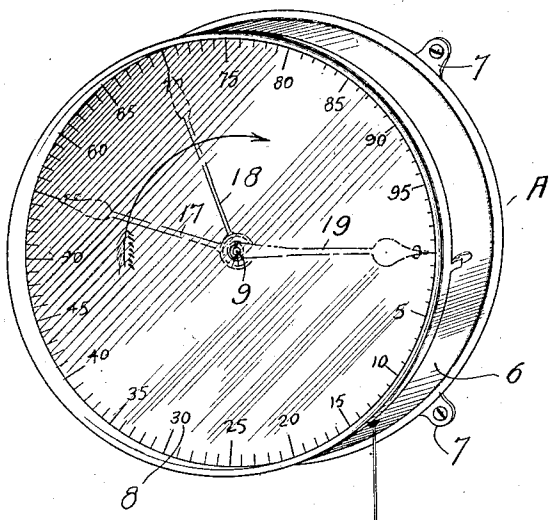
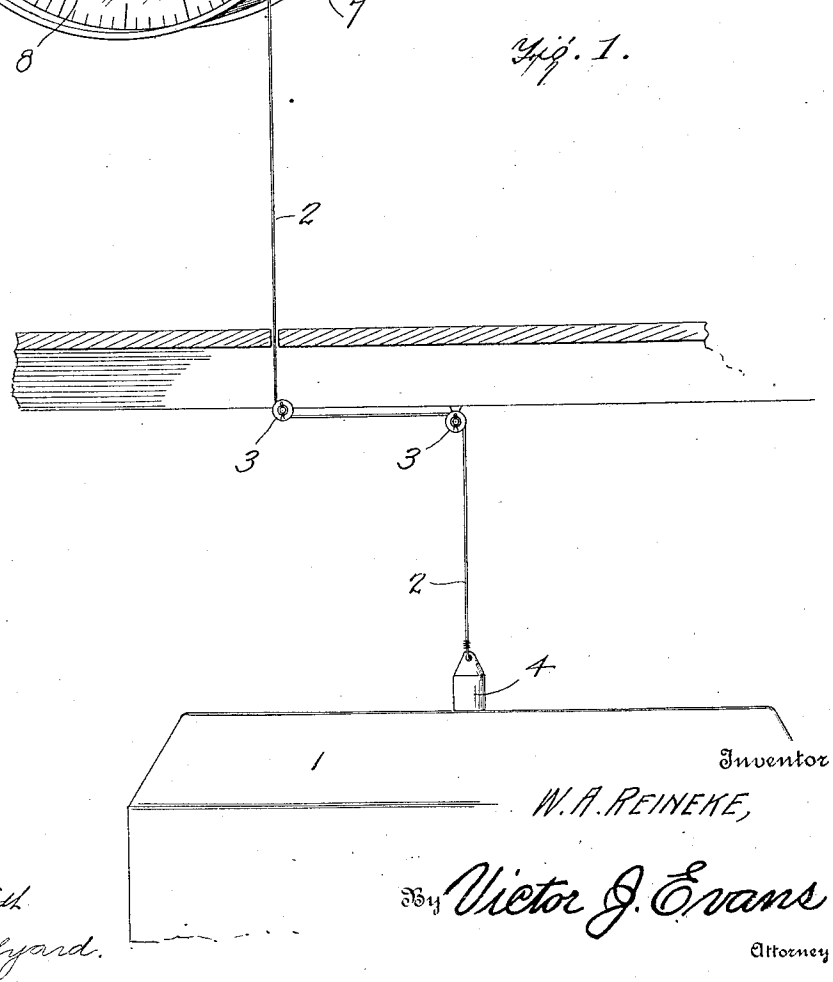



Fig. 1.




Witnesses

L. H. Schmidt

U. B. Hillyard.

Inventor

W. A. REINEKE,

By Victor J. Evans

Attorney

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

W. A. REINEKE.

REGISTER FOR CARBID LIGHTING PLANTS.

APPLICATION FILED APR. 10, 1912.

**1,054,618.**

Patented Feb. 25, 1913.

2 SHEETS—SHEET 2.

Fig. 2.

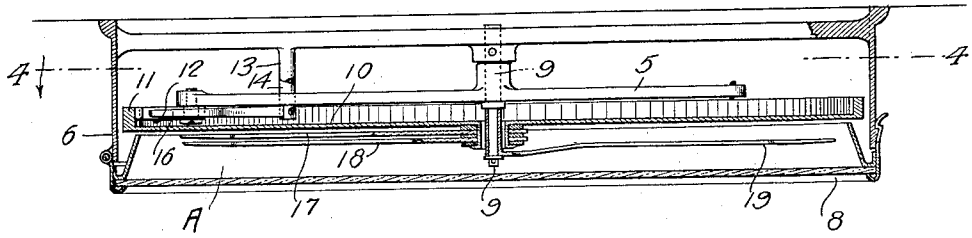



Fig. 3.

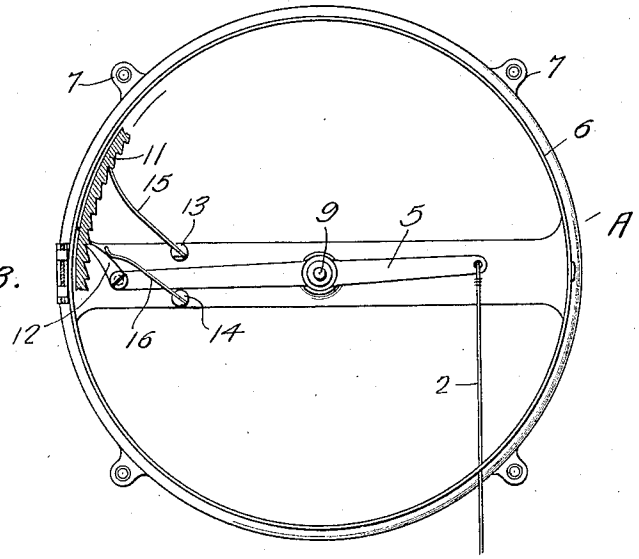
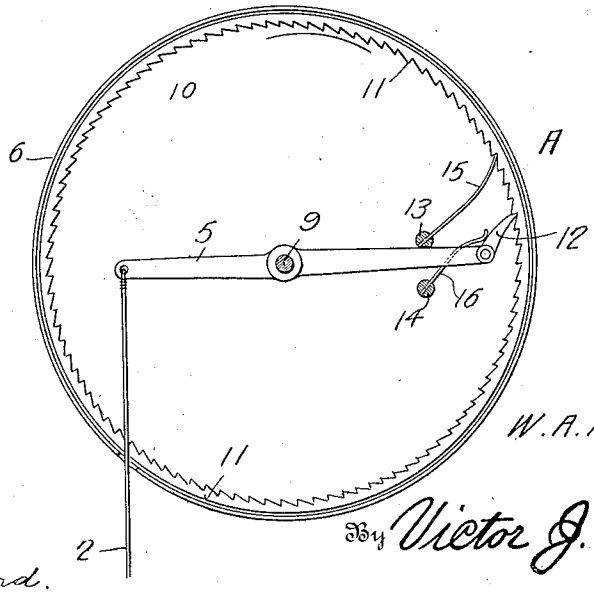



Fig. 4.




Witnesses

L. H. Schmidt.

U. B. Hillyard.

Inventor

W. A. REINEKE,

By Victor J. Evans

Attorney

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

# UNITED STATES PATENT OFFICE.

WILLIAM A. REINEKE, OF PERRY, ILLINOIS.

## REGISTER FOR CARBID LIGHTING PLANTS.

1,054,618. Specification of Letters Patent. Patented Feb. 25, 1913.

Application filed April 10, 1912. Serial No. 689,828.

*To all whom it may concern:*

Be it known that I, WILLIAM A. REINEKE, a citizen of the United States, residing at Perry, in the county of Pike and State of Illinois, have invented new and useful Improvements in Registers for Carbid Lighting Plants, of which the following is a specification.

The invention provides an indicator particularly designed for use in connection with lighting plants employing calcium carbid as the gas producing agent, said carbid being contained in a holder and fed therefrom in charges or predetermined portions as required in order to maintain an ample supply of gas.

The register is of such construction as to indicate the day when the holder was filled with carbid, the number of charges supplied to the holder and the number of charges used when the machine is in operation, thereby enabling the condition of the supply to be determined at any time from a convenient point without requiring the person to inspect the gas machine.

For safety the carbid gas machines are generally located exterior to the dwelling or structure to be lighted or are placed in a remote part of a cellar or other excavation, hence an inspection of the machine is usually attended with more or less inconvenience and a soiling of the hands or clothing.

The present invention provides a register which may be conveniently located in any room or place in the living quarters of the dwelling or structure, suitable connections being interposed between the operating mechanism of the register and the movable part of the gas machine, such as the bell for operating the register when the gas machine is in action.

The invention contemplates a register embodying a case, a movable dial, relatively fixed hands, and a peculiar operating mechanism for actuating the dial by an intermittent motion.

The invention consists of the novel features, details of construction and combination of parts, which hereinafter will be more particularly set forth, illustrated in the accompanying drawings, and pointed out in the appended claim.

Referring to the drawings, forming a part of the specification, Figure 1 is a detail view, showing a register embodying the invention and connecting means between the register and the movable part such as the gas bell of a gas machine for transmitting movement to the register for operating the same. Fig. 2 is a transverse section of the register. Fig. 3 is a front view of the register having the door and the dial omitted, showing more clearly the operating means. Fig. 4 is a section on the line 4—4 of Fig. 2, looking toward the front.

Corresponding and like parts are referred to in the following description, and indicated in all the views of the drawings, by the same reference characters.

The numeral 1 designates the bell or moving part of a gasometer of a gas machine, the latter being conveniently located either in the cellar of a dwelling or structure to be illuminated or exterior thereto. The register A is located so as to be readily accessible at all times to enable the condition of the charge in the carbid holder being ascertained at any time. A suitable connection is interposed between the register and the bell 1, the same consisting of a rope, cord or like part 2 which passes around guide pulleys 3 and has a weight 4 at its lower end to rest upon the bell 1 so as to rise and fall therewith, the opposite end of the connection 2 being attached to the operating part, such as the lever 5 of the register actuating mechanism.

The register embodies a case 6 which may be of any construction so as to inclose the working parts, said case having lugs 7 which are apertured to receive fastenings for connecting the register to a wall, partition or other convenient support. The door 8 closes the case and protects the dial and the hands. A post 9 is located centrally of the case and supports the lever 5 and the several hands. The dial 10 is mounted within the case in such a manner as to rotate about the post 9, which latter extends through an opening formed centrally of the dial. A rim or flange 11 projects rearwardly from the dial 10 and is toothed upon its inner wall. The rim 11 fits loosely within the case so as not to interfere with the rotation of the dial. The dial is graduated in such a manner as to indicate the number of charges or portions of the carbid fed from the holder at each operation of the gas machine. The dial is also provided upon its face with matter indicating the days of the week so

that upon inspecting the register it may be ascertained when the carbid holder was last replenished.

The lever 5 is mounted upon the post 9 and has a pawl 12 at one end to engage with the teeth of the rim or flange 11. The connection 2 is attached to the opposite end of the lever 5. Two stops 13 and 14 project from the back of the case toward the front thereof and the lever 5 passes between them and is limited in its movements thereby. A spring pawl 15 attached to the stop 13 at one end has its opposite end arranged to engage with the teeth of the rim 11 so as to prevent backward rotation of the dial. A spring 16 is attached at one end to the stop 14 and engages the pawl 12 and serves the two-fold purpose of holding said pawl in engagement with the teeth of the rim 11 and also of holding the lever 5 in a given position, that is with the end thereof carrying the pawl 12 in contact with the stop 14. The movement of the lever 5 is such as to advance the dial one tooth at each operation of the register or movement of the gas machine to supply a fresh charge from the carbid holder to the generator. When the bell 1 rises the weight 4 is lifted, thereby relieving the lever 5 of the pull represented by the weight when the spring 16 will depress the opposite end of the lever and bring it in contact with the stop 14. When the bell 1 lowers, as a result of a consumption of the gas, the weight 4 descends, thereby drawing downward upon the end of the lever 5 through the connection 2 and causing the opposite end of the lever provided with the pawl 12 to rise and to advance the dial one tooth, which corresponds with a graduation of the dial.

Three hands 17, 18 and 19 are employed and are mounted upon the outer end of the post 9. The hand 19 is stationary when set with reference to the post 9 and dial, but the hands 17 and 18 rotate with reference to the post 9 but are stationary with reference to the dial, since they move with the dial around the post 9 after being set. The hand 17 indicates the day when the carbid holder was charged. The hand 18 is set to indicate the amount of carbid supplied to the holder, said quantity representing so many charges or portions. The hand 19 being stationary and the dial movable it follows that the number of charges or portions of carbid used may be determined at any time, and by comparing the number of charges indicated as used with the number of charges supplied to the carbid holder it may be ascertained how many charges remain in the carbid holder, and on further comparison with the date when the carbid holder was filled with the date when making the comparison it may be determined how long the machine will operate with the remaining charges in the carbid holder, provided the consumption of the gas remains the same or the conditions remain practically unchanged.

From the foregoing, taken in connection with the drawings hereto attached, it will be readily understood that the invention provides means whereby the condition of an acetylene gas plant may be determined without requiring actual inspection of the machine to determine the amount of carbid contained in the holder, hence the carbid holder may be replenished in ample time, thereby avoiding the inconvenience of the supply of gas being cut off by the carbid holder becoming empty. The condition of the machine may be determined without necessitating a direct examination thereof, which at times may not be convenient and which is always attended with a liability of soiling the hands and clothing. Moreover, the register being located in such a position as to be practically under observation at all times provides means whereby a constant supervision over the gas machine may be had.

From the foregoing description, taken in connection with the accompanying drawings, the advantages of the construction and of the method of operation will be readily apparent to those skilled in the art to which the invention appertains, and while I have described the principle of operation of the invention, together with the device which I now consider to be the best embodiment thereof, I desire to have it understood that the device shown is merely illustrative, and that such changes may be made when desired as are within the scope of the claim appended hereto.

Having thus described the invention what is claimed as new, is:—

In a register of the character described the combination of a fixed post, a dial rotatable upon the post, hands mounted upon the post and rotatable with the dial, another hand mounted upon the post and adapted to be set and to occupy a relatively fixed position when set, a lever mounted upon the post, means for imparting an oscillatory movement to the lever, and a ratchet mechanism between the lever and dial for intermittently rotating the dial.

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

WILLIAM A. REINEKE.

Witnesses:
J. RAY HANNANT,
HARRIS BRADBURY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."