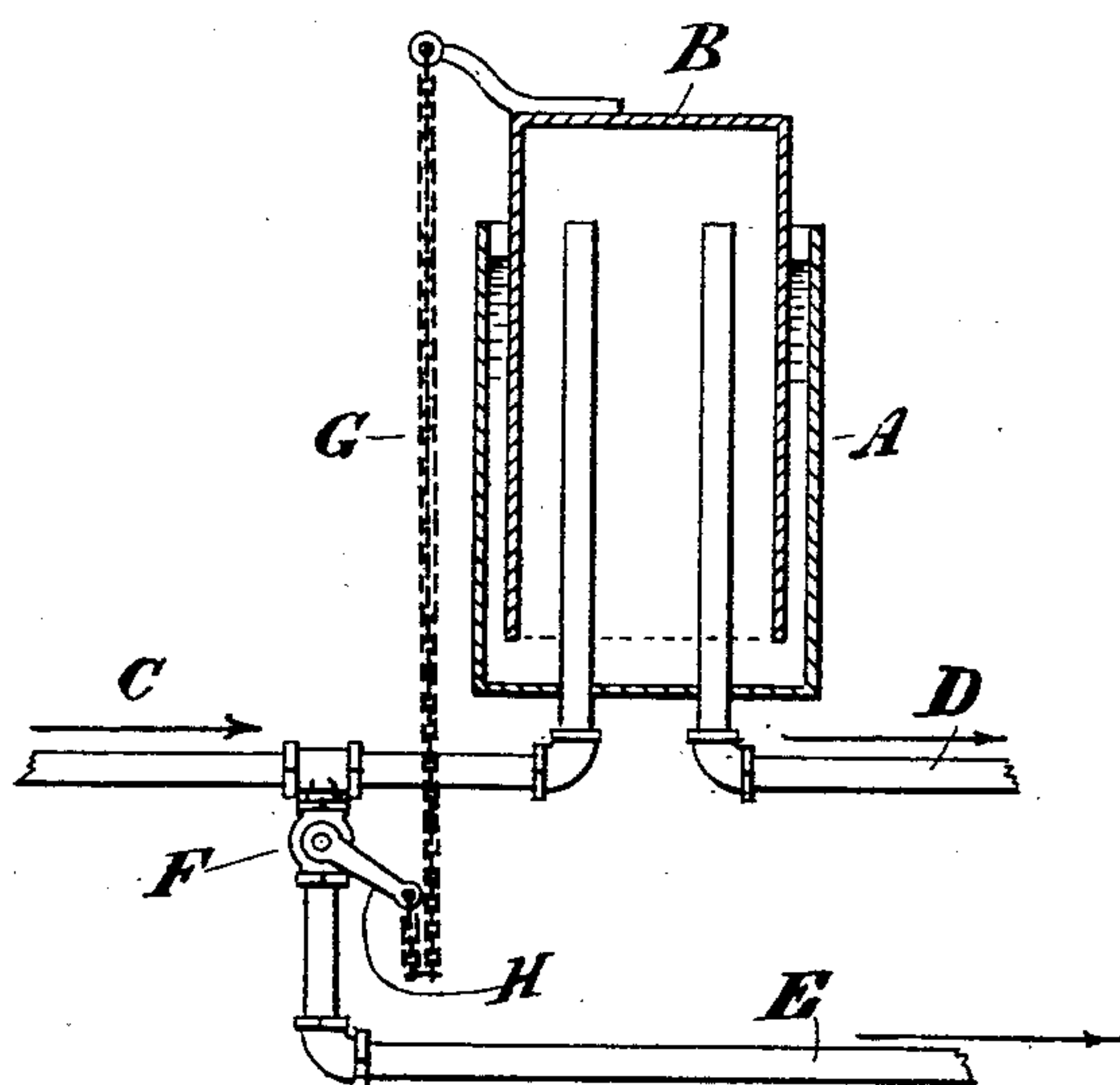


(No Model.)

E. N. DICKERSON.  
AUTOMATIC GAS HOLDER RELIEF VALVE.

No. 541,428.

Patented June 18, 1895.



WITNESSES:

*Thomas Littlejohn*  
*H. Contant.*

INVENTOR

*E. N. Dickerson*

# UNITED STATES PATENT OFFICE.

EDWARD N. DICKERSON, OF NEW YORK, N. Y.

## AUTOMATIC GAS-HOLDER RELIEF-VALVE.

SPECIFICATION forming part of Letters Patent No. 541,428, dated June 18, 1895.

Application filed December 17, 1894. Serial No. 532,006. (No model.)

*To all whom it may concern:*

Be it known that I, EDWARD N. DICKERSON, of the city, county, and State of New York, have invented a new and useful Improvement in Automatic Gas-Holder Relief-Valves, of which the following is a full, true, and exact description, reference being had to the accompanying drawing.

This invention relates to an improvement in safety discharge appliances applicable to gas-holders having a moving part. The object of my invention is to prevent an excessive filling of such gas-holder and consequent escape to the air past the gas-holder of gas which may be sent to said holder in excess of its capacity, and is especially applicable to such gas-holders as are located within a room where the escape of gas might be dangerous. In certain processes of gas manufacture an excess of gas may be produced which is not readily controllable.

By my invention when the gas-holder has reached its determined limit of capacity the remaining gas is allowed to escape through an outlet to a place of safety, or it may be received and stored in another receptacle.

My invention will be readily understood from the accompanying drawing, in which—

B represents the moving bell of the gas holder, and A its tank. It will be understood, of course, that such gas-holder is of ordinary construction.

C represents the inlet pipe and D the outlet pipe.

F represents a normally closed escape valve connecting with pipe E. The lever H of valve F is connected by chain G to bell B in such a

manner as that when the holder has reached its determined limit of stroke the escape valve F is opened and the excess of gas passes by pipe E to the open air or to some other receptacle.

It will be observed that after the weight of the lever H has closed the valve F, the chain G continues to slacken as the holder B falls, thereby allowing lost motion, which may be equivalent to the entire traverse of the holder between the upward starting of the holder B and its action upon the valve F. The holder B, moreover, acts directly upon the valve H to open the same, and not through an intervening lever changing the rate of motion.

I do not in this application claim broadly the idea of opening an escape valve by the motion of a gas-holder, the same being old.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination of the gas holder B having an inlet pipe C and an outlet pipe D, the said inlet pipe being provided with an escape valve F, having lever H automatically closing said valve by gravity, and a chain G directly connected to the holder B and of such a length as to open the valve F only at the upper limit of traverse of the holder B, the valve otherwise being independent of the motion of the holder, substantially as described.

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

E. N. DICKERSON.

Witnesses:

H. COUTANT,  
WM. A. POLLOCK.