

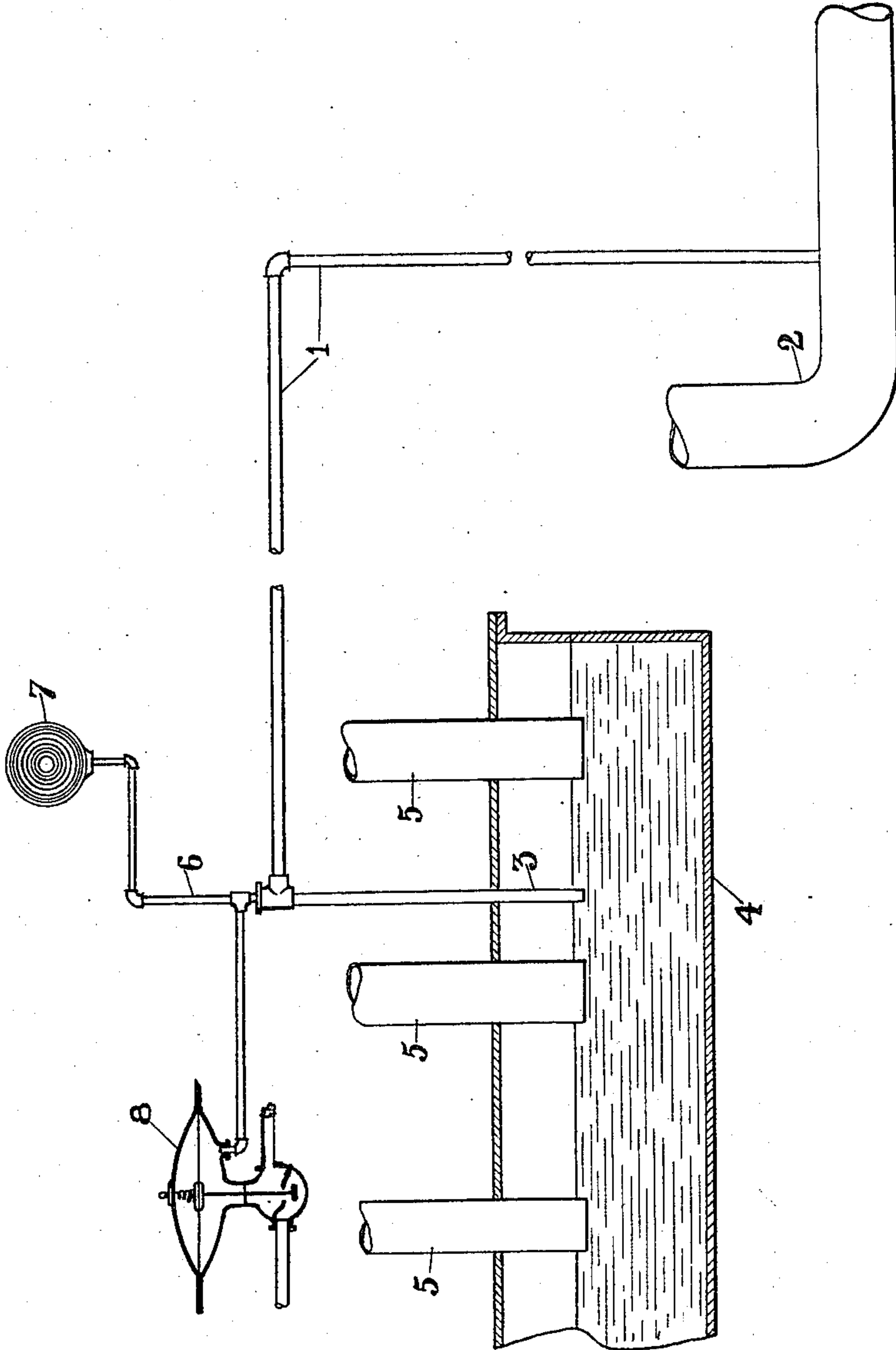
F. L. CROSS.

METHOD OF OPERATING RECORDING APPARATUS IN GAS DISTRIBUTING SYSTEMS.

APPLICATION FILED JUNE 25, 1909.

966,314.

Patented Aug. 2, 1910.



WITNESSES:

*A. M. Shannon.*  
*A. M. Dow.*

INVENTOR

**FRANK L. CROSS**

BY

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ATTORNEYS

# UNITED STATES PATENT OFFICE.

FRANK L. CROSS, OF DETROIT, MICHIGAN.

METHOD OF OPERATING RECORDING APPARATUS IN GAS-DISTRIBUTING SYSTEMS.

966,314.

Specification of Letters Patent.

Patented Aug. 2, 1910.

Application filed June 25, 1909. Serial No. 504,237.

*To all whom it may concern:*

Be it known that I, FRANK L. CROSS, a citizen of the United States of America, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Methods of Operating Recording Apparatus in Gas-Distributing Systems, of which the following is a specification, reference being had therein to the accompanying drawings.

In a gas generating and distributing plant, the hydraulic main is filled with gas carrying a large amount of paraffin, oils or vapor, tar and the like, which would quickly clog and render useless any delicate recording or regulating device which could be attached thereto as for example a pressure gage or a regulator automatically operated by gas from the main, or like device and therefore render abortive any attempt to use such apparatus in the ordinary way in connection with the main.

This invention relates to a method for utilizing the pressure in the hydraulic main of a gas generating and distributing system for recording, regulating or controlling apparatus in the system.

In the drawing, a diagrammatic view is shown of a hydraulic main of a gas plant of conventional type together with a supply, or service main and an arrangement of parts which constitutes one means for carrying out the method referred to.

This method consists in introducing a current of purified gas from some portion of the system that is most convenient, into the hydraulic main under pressure that varies as the pressure in the main, and operating the registering, regulating or controlling apparatus by this refined gas. As a convenient means for doing this, a pipe 1 leads from a service main 2, or like member of the system which is always charged or filled with a gas which will not foul the apparatus nor injure the gas in the main, under a pressure greater than the pressure maintained in the hydraulic main and has

an upright delivery end 3 entering the hydraulic main 4 and dipping into the liquor in the latter to the same depth as do the retort or other like pipes 5, so that the consequent pressure in the pipe 1 is always the same as that in the dip pipes in the hydraulic main. Or it may be introduced directly to the hydraulic main. At any convenient point near the main a branch 6 from the pipe 1 leads to a pressure gage 7 or any other piece of apparatus, such as a regulator, a controller 8 or like device which would become fouled and disabled if the unrefined gas of the main itself should come in contact with it.

Obviously, the arrangement of the apparatus for carrying out this method may be readily varied to meet different conditions.

What I claim as my invention is:—

1. A method of utilizing the pressure of crude gas in the hydraulic main or like part of a gas generating system for operating a registering, regulating or controlling apparatus for the main or like part which consists in introducing a current of purified gas into the main or like part in such manner that the pressure maintained in such current corresponds to that in the main or like part and in operating a registering, regulating or controlling apparatus by the said current.

2. A method of utilizing the pressure of crude gas in the hydraulic main or like part of a gas generating system for operating an indicating, regulating or controlling apparatus for the main or like part which consists in transmitting the pressure in the main through an interposed column of purified gas to the indicating, regulating or controlling apparatus.

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

FRANK L. CROSS.

Witnesses:

ANNA M. DORR,  
ANNA M. SHANNON.