

A. D. PURTLE.
ATTACHMENT TO AUTO GAS REGULATORS.
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1,001,683.

Patented Aug. 29, 1911.

Fig. 1.

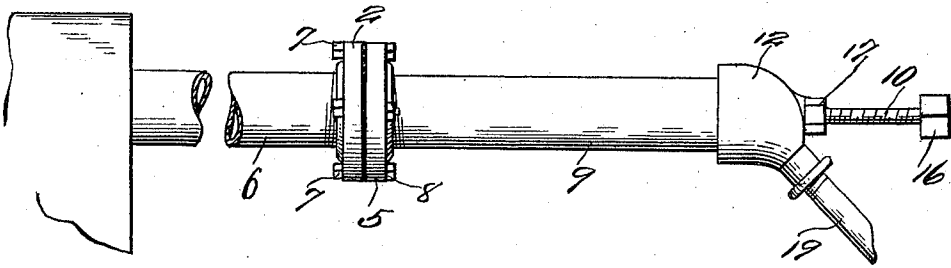
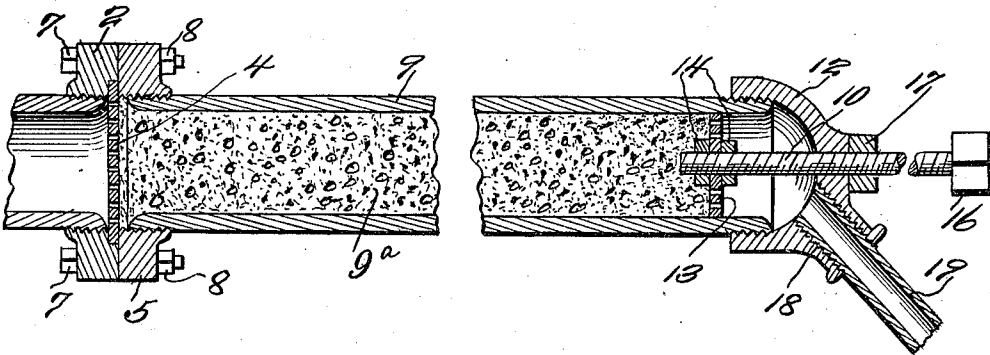


Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

ALBERT D. PURTLE, OF SALEM, WEST VIRGINIA.

ATTACHMENT TO AUTO GAS-REGULATORS.

1,001,683.

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Application filed October 1, 1910. Serial No. 584,903.

To all whom it may concern:

Be it known that I, ALBERT D. PURTLE, a citizen of the United States, residing at Salem, in the county of Harrison and State of West Virginia, have invented a new and useful Attachment to Auto Gas-Regulators, of which the following is a specification.

It is the object of the present invention to provide an improved separator for use in connection with gas regulators, and the said device is designed to be attached to the ends of the blow-off or drain pipes of gas line drips, or used in connection with fluid gas tanks or other places and will allow the fluid to drain out without allowing a very large waste of gas to occur. By this means the pressure of the gas is employed to cause the oil or water contained therein to be forced through a filtering medium and separate the same from the gas, it not being necessary to provide a separate outlet for the gas as the gas under pressure will pass through the same outlet from the separator that the oil and water will pass through.

The invention contemplates the provision of a separating chamber connected at the end of the drain and containing a filling or packing through which the water or oil to be separated from the gas is allowed to seep.

An embodiment of the invention is illustrated in the accompanying drawings, in which—

Figure 1 is a view in side elevation of a separator constructed in accordance with the present invention. Fig. 2 is a vertical longitudinal sectional view in detail, there-through.

In the drawings, the numeral 9 indicates a cylindrical chamber upon one end of which there is threaded a collar 5. A perforated disk 4 is disposed against the outer face of this collar and is held in place by a collar 2 rabbeted to receive the periphery of the disk and secured against the collar 5 by means of suitable bolts 7 and nuts 8. The gas drain is threaded into the collar 2 and is indicated by the numeral 6.

A head 12 is fitted upon the chamber at the other end thereof and threaded through this head is a screw 10 carrying at its inner end a perforated disk 13 held at adjustment upon the screw by suitable jam nuts 14. At its outer end, the screw is provided with a head 16 for the engagement of a wrench therewith whereby the screw may be rotated to adjust the disk 13 longitudinally in the chamber 9. A jam nut 17 is threaded upon the screw and bears against the head 12 for the purpose of holding the screw at adjustment. The head 12 is formed with an outlet branch 18 into which is threaded one end of a small drain or drip pipe 19 through which the water or oil discharges after having passed through the separating chamber 9.

Between the disks 4 and 14, the chamber 9 is filled with gravel, sand, fine shot, or other suitable substance 9^a.

From the foregoing it will be readily understood that the gas together with any liquid such as oil or water which may be mixed therewith, flows through the drain 6 into the separating chamber 9. The water is of course under the pressure of the gas behind it in the drain and seeps through the gravel or other filling 9^a and runs out through the drain pipe 19. Where the quantity of water or oil to be removed from the gas is comparatively small and there would ordinarily be likelihood of the gas and liquid escaping simultaneously in the form of a spray, the screw 10 may be tightened for the purpose of more closely packing the filling 9^a and in this manner retard the flow of gas through the separating chamber but permitting of the flow of the separated liquid there-through.

What I claim is:

In a device for separating liquid from gas, a chamber, a ring fitted upon the chamber at one end thereof, a ring removably clamped to the first mentioned ring, a foraminous disk held between the two rings, the last mentioned ring being interiorly threaded for

the reception of a gas drain, a head removably fitted upon the chamber at the other end thereof, a foraminous disk slidably fitted in the chamber, a filling packed between the two disks, an adjusting screw threaded through the head and supporting the last mentioned disk, and a drip pipe leading downwardly from the head.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

ALBERT D. PURTLE.

Witnesses:

T. B. GILBERT,
GUY C. DAVIS.

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