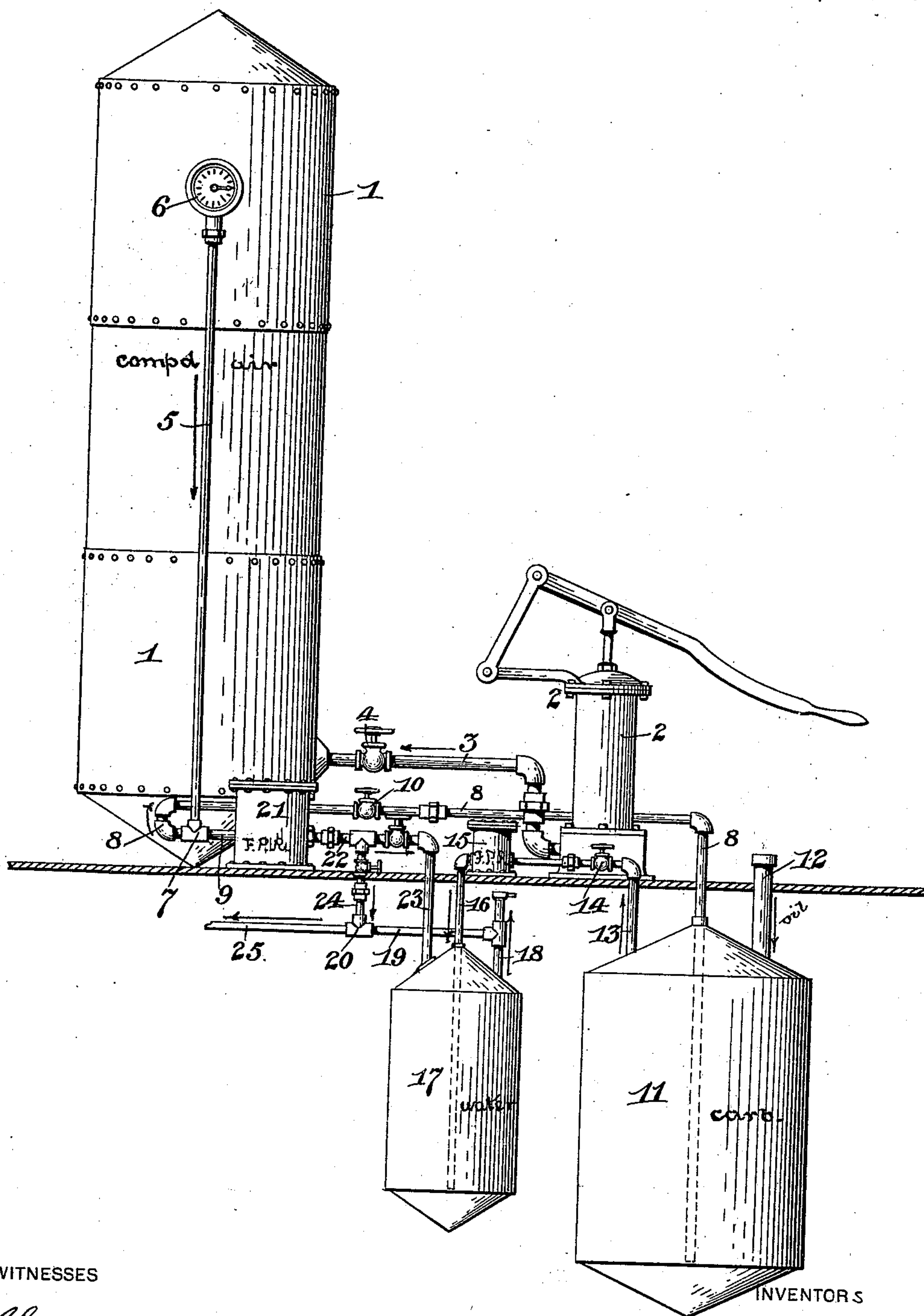


(No Model.)

W. B. VESTAL & S. W. RAY.  
GAS GENERATOR.

No. 554,630.

Patented Feb. 11, 1896.



WITNESSES

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# UNITED STATES PATENT OFFICE.

WILLIAM B. VESTAL AND SAMUEL W. RAY, OF DALLAS, TEXAS.

## GAS-GENERATOR.

SPECIFICATION forming part of Letters Patent No. 554,630, dated February 11, 1896.

Application filed September 18, 1895. Serial No. 562,845. (No model.)

*To all whom it may concern:*

Be it known that we, WILLIAM B. VESTAL and SAMUEL W. RAY, citizens of the United States, residing at Dallas, in the county of Dallas and State of Texas, have invented certain new and useful Improvements in Gas-Generators, of which the following is a specification.

Our invention relates to improvements in gas-generators; and the object of our invention is to provide apparatus for generating gas from light hydrocarbons, which apparatus shall be of superior efficiency for the purpose intended and shall at the same time be simple and economical in construction and operation.

Our invention also consists in the novel construction, combination, and arrangement of parts for the above ends, hereinafter fully specified and particularly pointed out in the claims.

In the accompanying drawing the figure is a diagram in elevation, illustrating the arrangement of the gas-generator.

1 represents the reservoir for compressed air, supplied by an air-pump 2 through the pipe 3 provided with a cut-off 4. From the reservoir 1 there leads an eduction-pipe 5, provided with a pressure-indicator 6, said pipe dividing at 7 into two branches 8 and 9. The branch 8, provided with a suitable cut-off 10, leads to the bottom of the gasoline-tank 11, into which gasoline has been inducted through the supply-pipe 12. From the upper end of the gasoline-tank leads a pipe 13 with cut-off 14 to a fluid-pressure regulator 15, and thence by a pipe 16 to the bottom of the water-tank 17. From the top of the water-tank leads a pipe 18, having a branch 19 leading to the T-joint 20. The branch 9 of the pipe 7 leads through the fluid-pressure regulator 21 to the pipe 22, having two branches, one of which, 23, leads direct to the water-tank and the other, 24, leads to the T-joint 20.

The compressed air arriving through the pipes 22 24 and the gas expelled from the gasoline-tank 11 commingle at the T-joint 20 and pass off through the exhaust-pipe 25.

Having thus fully described our invention, what we claim, and desire to secure by Letters Patent, is—

1. In a gas-generator, the combination of

a gasoline-tank, a water-tank, a compressed-air reservoir, an exhaust-pipe for the generated gas, a conduit leading to said exhaust-pipe from the compressed-air reservoir through the gasoline and water tanks, a fluid-pressure regulator interposed in said conduit, a second conduit leading direct from said reservoir to said exhaust-pipe, and a fluid-pressure regulator interposed in said second conduit, substantially as described.

2. In a gas-generator, the combination of a gasoline-tank, a compressed-air reservoir, an exhaust-pipe for the generated gas, a conduit leading to said exhaust-pipe from the compressed-air reservoir through the gasoline-tank, a fluid-pressure regulator interposed in said conduit, and a second conduit leading direct to said exhaust-pipe from said reservoir, and a fluid-pressure regulator interposed in said second conduit substantially as described.

3. In a gas-generator, the combination of a gasoline-tank, a compressed-air reservoir, a conduit leading therefrom to the bottom of said tank and opening therein, a conduit leading from the top of said tank, a fluid-pressure regulator interposed in the latter conduit, and a conduit leading direct from said reservoir to the last-named conduit, and having interposed therein a fluid-pressure regulator, substantially as described.

4. In a gas-generator, the combination of a gasoline-tank, a compressed-air reservoir, a conduit from said reservoir opening into the bottom of said tank, a conduit leading from the top of said tank, a water-tank into the bottom of which the latter conduit opens, a fluid-pressure regulator interposed in said conduit between said tanks, an exhaust-pipe leading from the top of said water-tank, a conduit leading direct from said reservoir to said exhaust-pipe, and a fluid-pressure regulator interposed in the latter conduit, substantially as described.

In witness whereof we have hereunto set our hands in the presence of two subscribing witnesses.

WILLIAM B. VESTAL.  
SAMUEL W. RAY.

Witnesses:

W. H. FORY,  
J. M. HANNA.