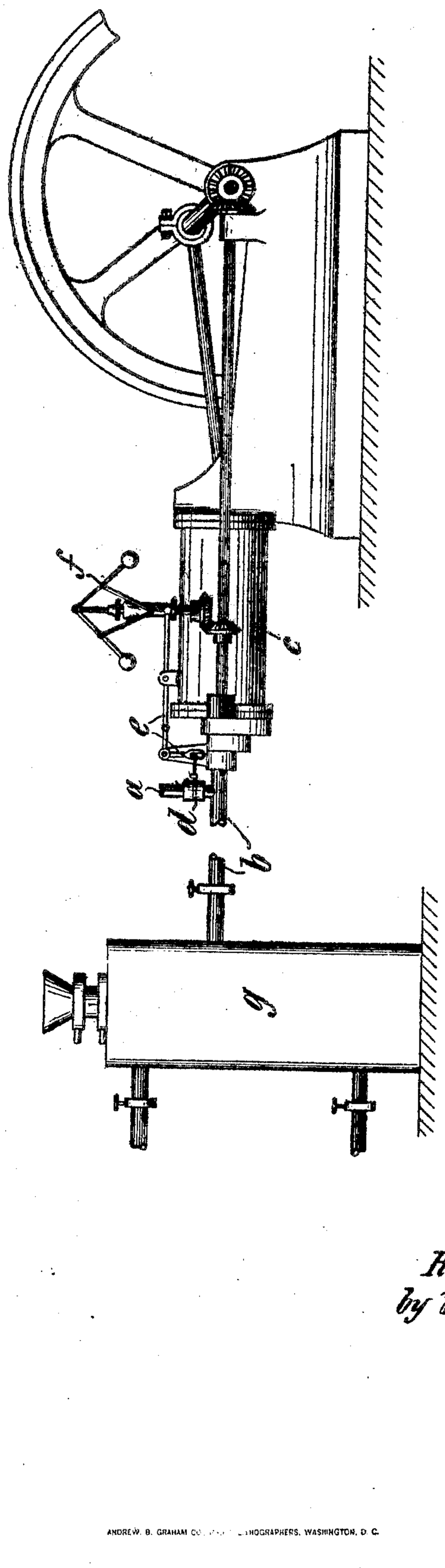
No. 797,710. PATENTED AUG. 22, 1905.

R. PINTSCH.

GAS PRODUCER.

APPLICATION FILED NOV. 30, 1904.



Witnesses.

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UNITED STATES PATENT OFFICE.

RICHARD PINTSCH, OF BERLIN, GERMANY, ASSIGNOR TO THE AMERICAN SUCTION GAS PRODUCER CO., OF LANSING, MICHIGAN.

GAS-PRODUCER.

No. 797,710. Specification of Letters Patent. Patented Aug. 22, 1905.

Application filed November 30, 1904. Serial No. 234,897.

To all whom it may concern:

Be it known that I, RICHARD PINTSCH, a citizen of the German Empire, residing at Berlin, German Empire, have invented a new and useful Improved Gas-Generating Plant, of which the following is a description.

The present invention relates to that class of gas-generating plant which works by suction—*i. e.*, in which the air and steam necessary for the generation of the producer-gas are drawn into the generator in the required proportions by the suction of the working cylinder of the motor driven by the said generator—in that the motor draws off from the generator the quantity of gas which it requires, and thus produces the necessary suction for the generation of the next quantity of gas. These generators work, therefore, normally below atmospheric pressure, and as they are often employed in connection with buildings it is necessary to prevent any excess of the gas generated escaping from the generator when the engine is running at a slower rate or is stopped altogether. This object is attained in the present case by providing a branch pipe leading from the gas-feed to the engine into the open air, said branch pipe being normally closed by means of a valve or the like controlled by a governor actuated by the motor and which governor operates the said valve or the like to open the same as soon as the speed of the motor is reduced or the motor is brought to a standstill, so that any superfluous gas generated in the glowing bed of coal after such stoppage or any excess of gas generated by a sudden or other reduction in the speed of the motor will immediately be allowed to escape into the open air, and thus all danger of explosions occurring from an accumulation of such gas in the building will be obviated.

In order to render the present specification easily intelligible, reference is had to the accompanying drawing, showing a diagram of the device.

The generator *g* is of the known construction and is connected to the gas-motor *c* by means of a gas-feed pipe *b*. This latter is provided with a branch pipe *a*, leading in any suitable manner to the open air, and within this pipe is provided a valve, cock, or the like *d*, which when the engine is running at the normal speed is adapted to keep the said branch pipe closed. The said valve or the like is connected up to the actuating-sleeve of a governor *f*, ball-governor, or any other class of governor by means of a suitable lever system *e* in any of the known manners, but so as to open the valve when the machine slows down or stops and to allow the surplus gas produced to escape into the open air.

I wish it to be clearly understood that any suitable class of governor, lever connections, or control-valve may be employed, claiming broadly—

1. In a gas-producer worked by the suction of the motor driven by it, the combination of a valve or the like mounted in open connection with the gas-feed pipe to the motor and means controlled by the motor for opening the said valve and establishing communication between the gas-feed and the open air when the gas produced is not all consumed.

2. In a gas-producer worked by suction from the motor driven by it, the combination of a gas-feed pipe from the producer to the motor, a branch in said pipe leading to the open air, a valve in said branch, a governor driven by the motor and means for connecting the said governor to the valve to open the branch pipe when the gas produced is not all consumed, substantially as described.

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

RICHARD PINTSCH.

Witnesses:
HENRY HASPER,
WOLDEMAR HAUPT.