

No. 637,682.

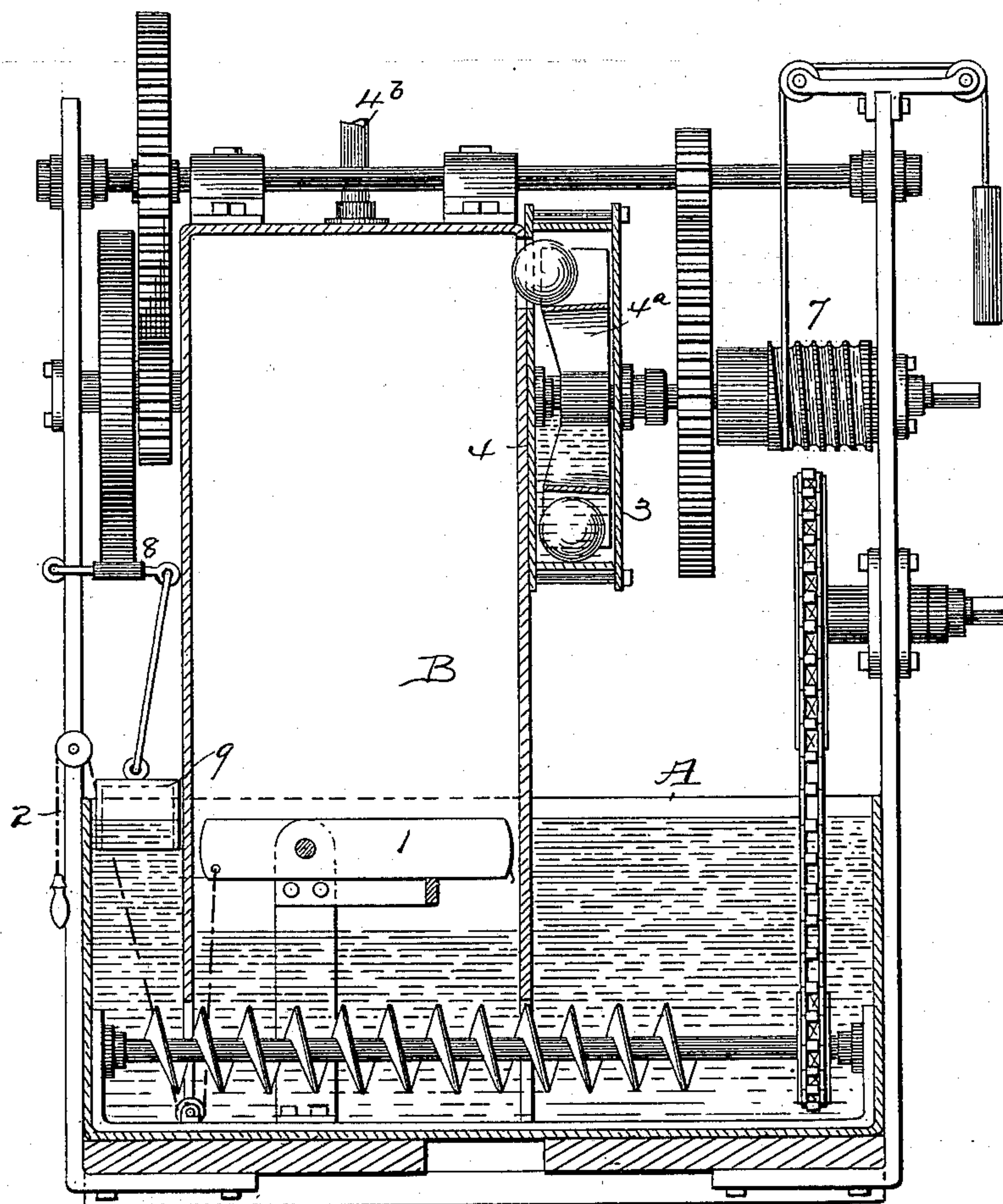
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T. G. TURNER.

PROCESS OF MAKING ACETYLENE GAS.

(Application filed Apr. 27, 1899.)

(No Model.)



WITNESSES
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PROCESS OF MAKING ACETYLENE GAS.

SPECIFICATION forming part of Letters Patent No. 637,682, dated November 21, 1899.

Application filed April 27, 1899. Serial No. 714,734. (No specimens.)

To all whom it may concern:

Be it known that I, THOMAS G. TURNER, of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Processes of Making Acetylene Gas; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improved process for making acetylene gas, the objects of the invention being to manufacture acetylene gas without the necessity of handling the calcium carbide after it leaves the manufacturer and to so manipulate the containers for the carbide that the latter will be effectually protected from fire and moisture until it shall have entered the generator.

With these objects in view the invention consists in certain novel steps in the process of making acetylene gas, as hereinafter set forth, and pointed out in the claims.

The accompanying drawing is a sectional view of one form of apparatus by means of which my improved process can be carried into effect.

The calcium carbide is packed into containers A, of glass or other water and fire proof fragile or frangible material, by the manufacturer of the carbide. The glass containers will be tightly and hermetically sealed before shipment by the manufacturer of the carbide and will be discharged in this condition into the tank of an acetylene-gas generator.

In the drawing I have shown one form of generator by means of which a part of my process can be effected.

A represents a basin adapted to contain water, and B a vertically-disposed generator-tank inverted into the basin. A grate 1 is disposed in the lower part of the tank and a cord or chain 2 may be attached to said grate for shaking it. A feed-receptacle 3 is secured to the upper part of the tank and adapted to communicate therewith, and said receptacle 3 contains a water seal 4 to prevent escape of gas through it. A pocketed feed-wheel 4^a is mounted in the receptacle 3 and adapted to convey the glass carbide-containers through the water seal and discharge them into the tank. When a carbide-container is thus dis-

charged into the tank, it will fall upon the grate and be thus broken into fragments, thereby liberating the carbide and permitting it to fall into the water under the grate and result in the generation of acetylene gas, which latter will escape through a pipe 4^b to a place of consumption.

A motor 7 may be connected with the feed-wheel for rotating it, and with this motor a brake 8 is connected through the medium of suitable gearing. The brake may be controlled by a float 9, actuated by the gas-pressure in the generator.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The herein-described process consisting in hermetically sealing calcium carbide in a water and fire proof breakable container, discharging the package into a generator and automatically liberating the whole charge of carbide by breaking said container within the generator.

2. The herein-described process consisting in hermetically sealing calcium carbide in a water and fire proof fragile container discharging the package into a generator and automatically liberating the carbide by fracturing said container within the generator.

3. The herein-described process consisting in hermetically sealing a charge of calcium carbide in a container and subsequently destroying said container to liberate the whole of said charge at once within an acetylene-gas generator.

4. The herein-described process consisting in sealing calcium carbide in a fragile container and subsequently dropping the package onto a breaker in a tank containing water.

5. The herein-described process consisting in sealing calcium carbide in a fragile water and fire proof container and subsequently breaking said container within a tank and over a body of water therein.

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

THOMAS G. TURNER.

Witnesses:

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