(No Model.)

S. R. BRICK.

SAFETY GAS TANK FOR VESSELS.

No. 283,962. Patented Aug. 28, 1883.

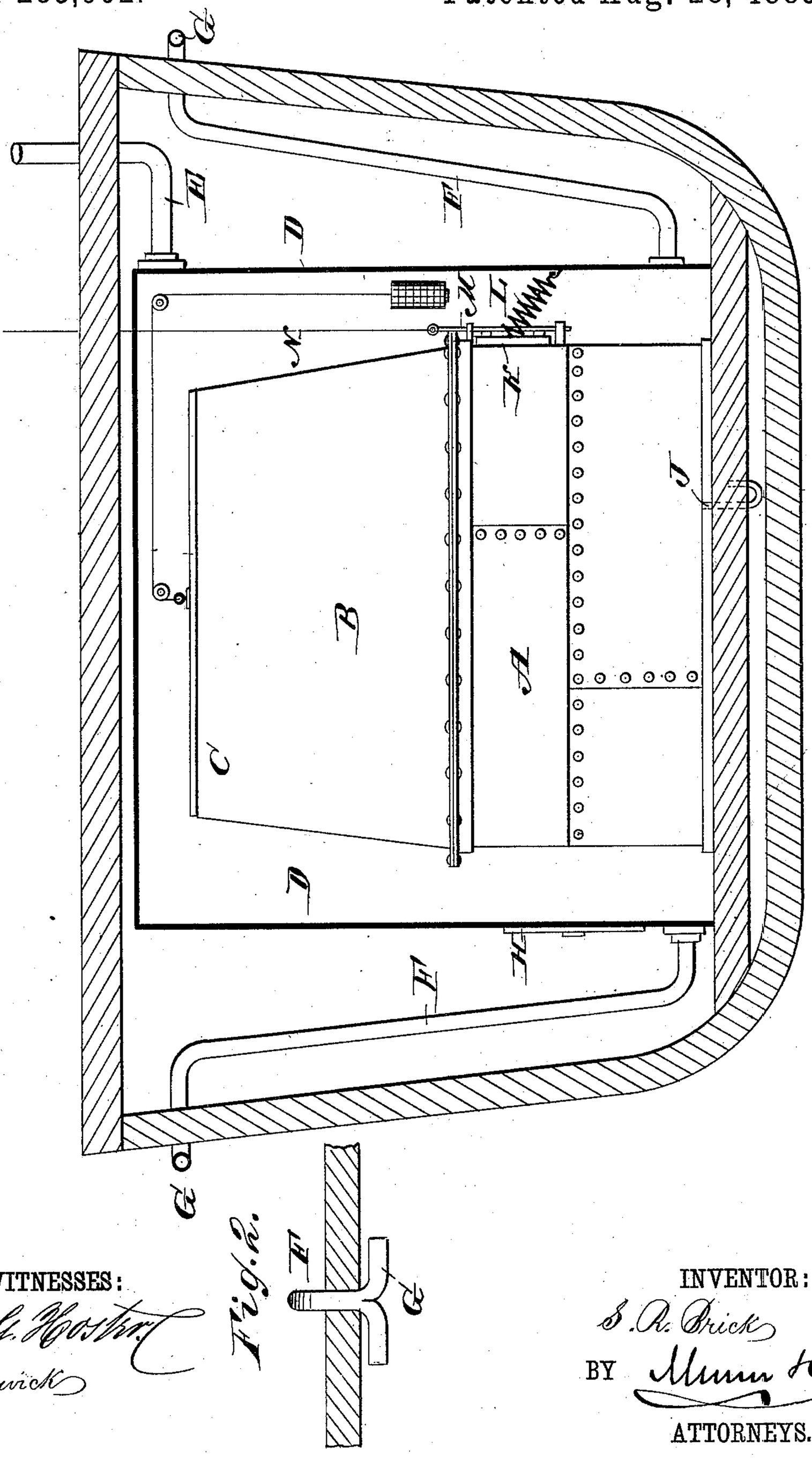

Fig. 1.

Fig. 2.

WITNESSES:

Thos. G. Hoster

C. Sedgwick

INVENTOR:

S. R. Brick

BY Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

SAMUEL R. BRICK, OF STAPLETON, NEW YORK.

SAFETY GAS-TANK FOR VESSELS.

SPECIFICATION forming part of Letters Patent No. 283,962, dated August 28, 1883.

Application filed June 4, 1883. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL R. BRICK, of Stapleton, in the county of Richmond and State of New York, have invented a new and Improved Gas-Tank for Vessels, of which the following is a full, clear, and exact description.

This invention relates to the gas-tanks or gasometers used for storing compressed gas in vessels, and has for its object to prevent accidents by the explosion of the gas that has escaped from the tank, and also to empty the tank immediately in case a collision or other accident takes place.

The invention consists in an air-tight casing surrounding the gasometer, which casing is provided with a ventilating or flue pipe, and with one or two air-inlet pipes, so that any gas escaping from the gasometer will be carried off by the draft produced, and thus gas cannot accumulate in parts of the hold.

The invention further consists in a gasometer-gate which is drawn open by a powerful spring, when released, to permit the gasometer to be emptied very rapidly in case a collision takes place.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 is a cross-sectional elevation of the hull of a vessel containing my improved safety gas-tank. Fig. 2 is a sectional plan view of part of the same, showing the arrangement of the ends of the air-inlet pipes.

The tank or gasometer A is provided with a rubber or leather top, B, in the usual manner, which rubber top B is provided with heavy boards or plates C on its top. The gasometer is surrounded by a larger casing, D, which is made absolutely air-tight and is secured firmly to the floor on which the gasometer stands. A ventilating or draft pipe, E, extends from the upper part of the casing D upward. A pipe, F, extends from each side of the casing D, and from the bottom part of the same upward, and projects from the sides of the vessel a short distance below deck. The outer ends of the pipes F terminate in two pipes, G, one projecting forward and the other aft, so that, in whatever direction the vessel may be going, air will pass through one of the pipes G and the pipe F into the casing D surrounding the gasometer, and this air forces the gas that has leaked out of the gasometer and collected in the casing out through the ventilating or flue pipe E. Any accumulation of gas in the casing is thus prevented. The escaping gas cannot accumulate in any part of the hold of the vessel, and there is no danger of an explosion of the escaped gases, as the escaped gases cannot leave the casing otherwise than through the ventilating-pipe E. The casing D is provided with a man-hole closed by a door, H. The floor or bottom of the casing is provided with a siphon, J, for siphoning off any water that may accumulate in the bottom of the casing, as otherwise it might possibly happen that the water rises high enough to close the lower ends of the pipes F. The gasometer is provided with a loose door, K, to which a very powerful spring, L, is fastened, which is also fastened to the casing D and draws the door toward the said casing. The door K is held in place by a sliding or swinging bolt or latch, M, fastened to a cord or wire, N, extending to the pilot's tower. In case a collision takes place and there is danger of the escaping gas causing an explosion, the bolt M is drawn by means of the cord N, and the door will then be released. As soon as the door is released the spring L draws it very forcibly toward the side of the casing, thus permitting the compressed gas in the gasometer to escape into the casing D, from which it is carried off by the ventilator-pipe E.

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

1. The combination, with a gas-tank and a pipe for conducting fresh air into the space between the outer tank and the gasometer, of an air-tight casing surrounding it, which casing is provided with a ventilating or draft pipe for carrying off the gas escaping from the gas-tank and collecting in the casing surrounding the tank, substantially as herein shown and described.

2. The combination, with a gasometer, of an air-tight casing surrounding it, a ventilating or draft pipe extending from the top of the said casing, and of pipes for conducting air into the casing, substantially as herein shown and described, and for the purpose set forth.

3. The combination, with the gasometer A, of the air-tight casing D, the ventilating-pipe E, and the pipes F, terminating at the outer ends in pipes G, substantially as herein shown and described, and for the purpose set forth.

4. The combination, with a gasometer, of an air-tight tank surrounding it, a door in the gasometer, a spring for drawing the door open when it is released, and a bolt for holding the door locked or closed, substantially as herein shown and described, and for the purpose set forth.

5. The combination, with the gasometer A, of the air-tight casing D, the door K, the spring L, the sliding bolt M, and the cord or wire N, substantially as herein shown and described, and for the purpose set forth.

SAMUEL R. BRICK.

Witnesses:
OSCAR F. GUNZ,
C. SEDGWICK.