

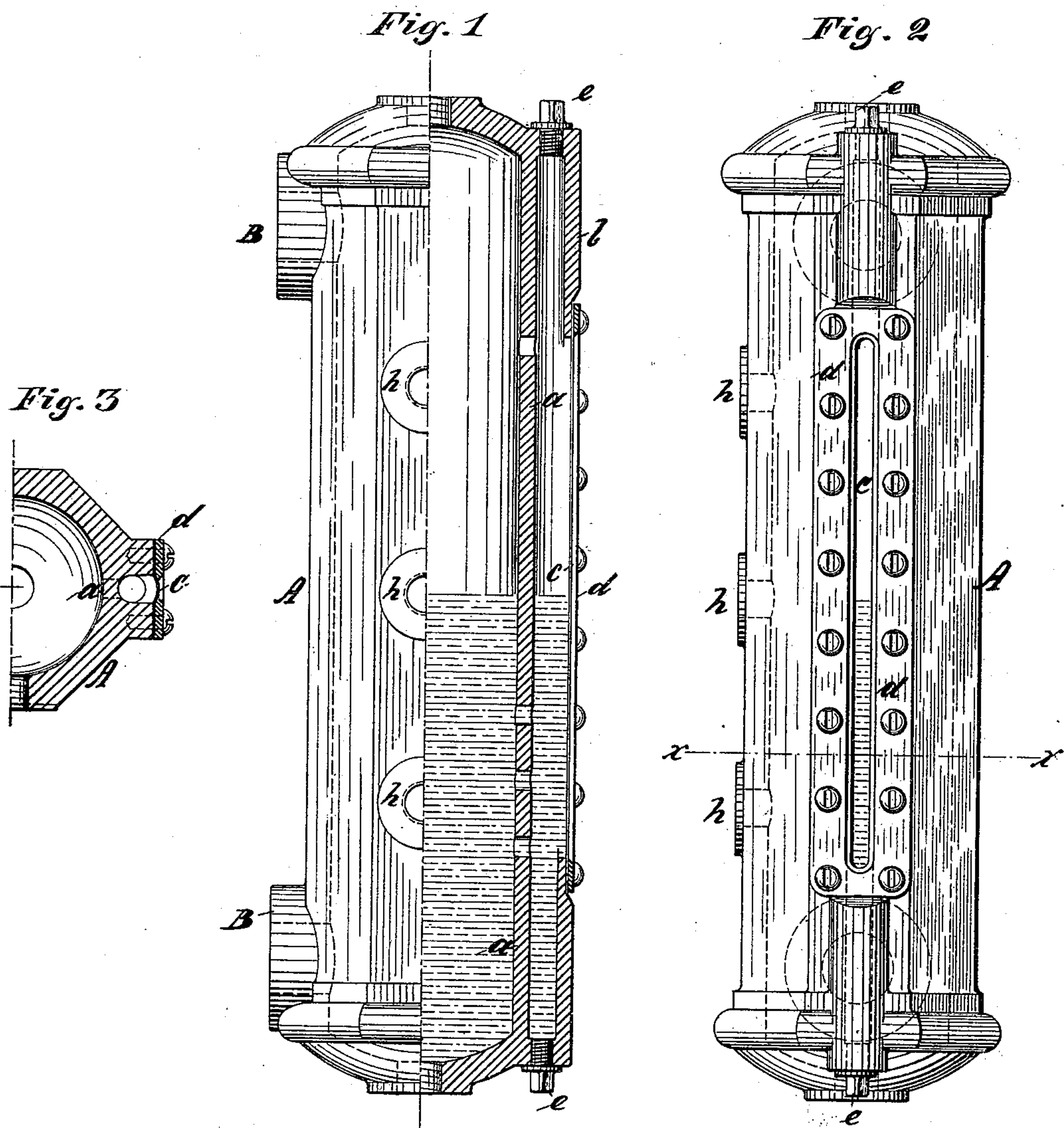
(No Model.)

T. H. CHEEK.

WATER GAGE.

No. 353,920.

Patented Dec. 7, 1886.



WITNESSES:
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THOMAS H. CHEEK, OF MARIETTA, GEORGIA.

WATER-GAGE.

SPECIFICATION forming part of Letters Patent No. 353,920, dated December 7, 1886.

Application filed May 26, 1886. Serial No. 203,265. (No model.)

To all whom it may concern:

Be it known that I, THOMAS H. CHEEK, a citizen of the United States, residing at Marietta, in the county of Cobb and State of Georgia, have invented a new and useful Improvement in Water-Gages for Steam-Generators, of which the following is a specification, reference being had to the accompanying drawings, forming a part of the same, in which—

Figure 1 is a side elevation, partly in section, Fig. 2 a front elevation, and Fig. 3 a cross-section on the line *x x*, Fig. 2, of a water-gage embodying my invention, similar letters of reference indicating corresponding parts in the several figures.

In order that others may understand and use my invention, I will first proceed to describe a device embodying it, and subsequently to point out in the claim its novel features.

In the drawings, A represents the body of the gage, which is composed of a hollow metallic shell closed at the ends and constructed with side openings near the top and bottom, having projecting flanges B B, that form communicating connections with the steam and water space through the shell of the generator, the connection being made so that the central part of the gage will be at the height of the normal water-level in the generator, as indicated in Fig. 1.

A narrow chamber is formed in the gage by a partition, *a*, that is perforated near its top and bottom to permit the entrance of the steam and water and equalize the pressure which preserves the equilibrium of the water and also checks its agitation, a greater number of such perforations being made at the lower part or water-connection, to avoid clogging by foreign matter carried in suspension in the water.

The front of this chamber *a* is provided with a sight opening covered with a plate of mica, *c*, through which the height of the water is

shown, the mica plate *c* being fastened in place by means of a flat metallic frame, *d*, secured by screws to the body of the gage, as shown. The opening of the frame *d* may be beveled around its edge and the mica plate swelled outwardly or made to present a convex surface, as shown in the cross-sectional view, Fig. 3, so that the water may be seen by the attendant when in a position at an angle to the gage.

e e represent screw-plugs that close openings made at the opposite ends of the chamber *a*, these plugs being removed when it is necessary to clear the chamber or clean the mica plate, which can be effected by the introduction of a wiper. The advantages attending the use of mica in this situation are manifest as compared with glass, there being no danger of fracture resulting from external causes or from the fluctuations of temperature or pressure to which these gages are subjected. The gage may also be supplied with gage-cocks applied to the supplemental openings indicated at *h*.

Having thus referred to a structure containing my invention, what I claim, and desire to secure by Letters Patent, is—

A water-gage for steam-generators, consisting of a closed vessel having openings near the top and bottom that communicate by suitable connections with corresponding openings into the steam and water spaces of the generator, a compartment having its inner wall or partition perforated to communicate with said closed vessel, as described, and its outer wall provided with a sight-opening covered with mica and end openings fitted with removable stoppers, substantially as described.

THOS. H. CHEEK.

Witnesses:

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