

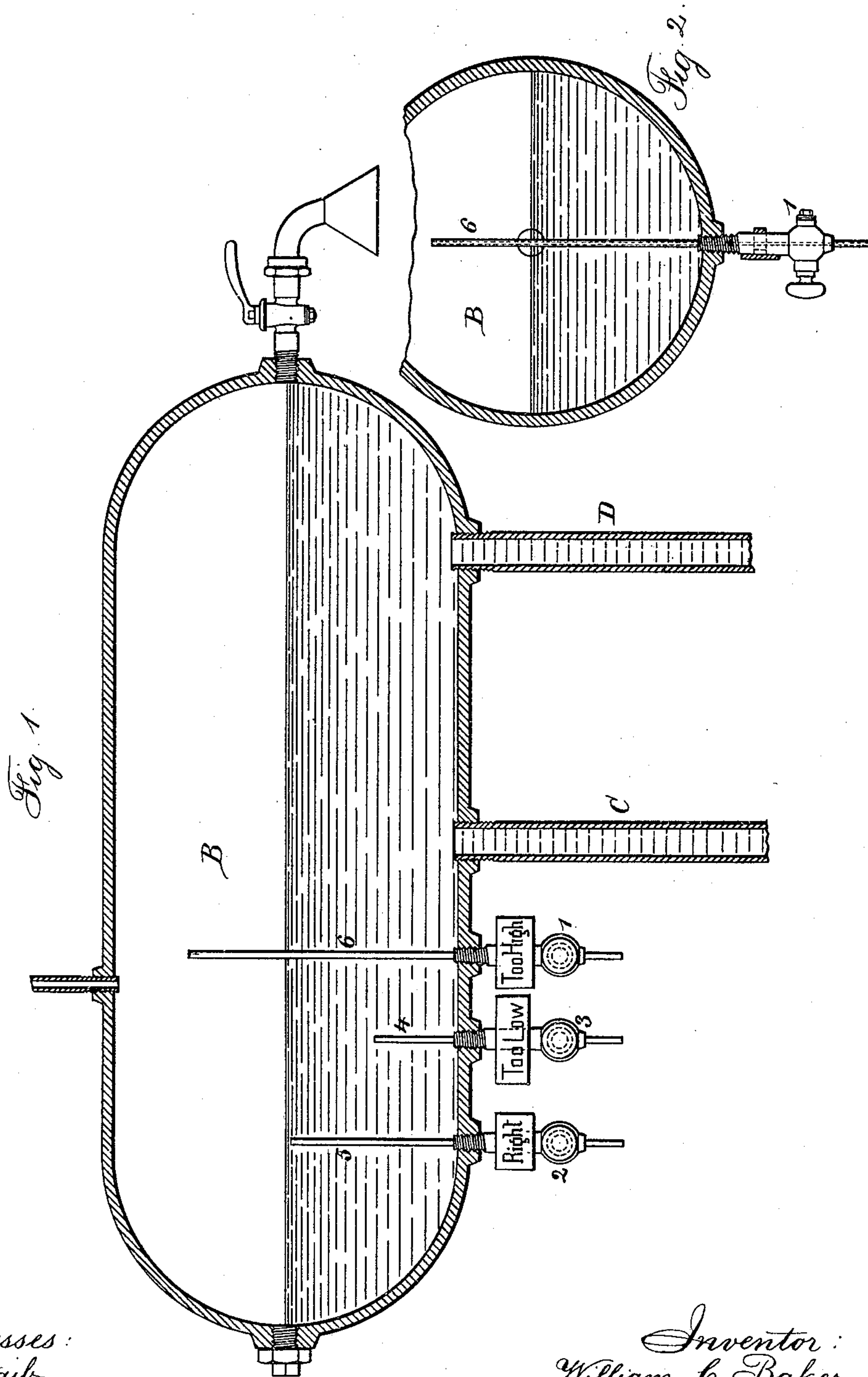
(No Model.)

W. C. BAKER.

GAGE COCK FOR BOILERS.

No. 368,441.

Patented Aug. 16, 1887.



Witnesses:
J. Stail
Chas. H. Smith

Inventor:
William C. Baker
per Lemuel W. Serrell atty

UNITED STATES PATENT OFFICE.

WILLIAM C. BAKER, OF NEW YORK, N. Y.

GAGE-COCK FOR BOILERS.

SPECIFICATION forming part of Letters Patent No. 368,441, dated August 16, 1887.

Application filed November 23, 1886. Serial No. 219,578. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM C. BAKER, of the city and State of New York, have invented an Improvement in Gage-Cocks for Boilers and Heating Apparatus, of which the following is a specification.

My present improvement is especially available in heating apparatus for railway-cars, although it may be used in steam-boilers wherever the water-line is elevated considerably above the engineer or attendant.

In heating apparatus for railway-cars it is usual to have a water vessel or drum above the roof of the car, into which the water passes as it circulates, and any bubbles of steam or air remain therein, and the water descends and circulates back through the coil in the fire. A gage-cock has been provided upon this drum to ascertain whether the water is sufficiently high; but it is usually so difficult of access that the water-level is not examined as often as it should be, and when the water-level descends too low the circulation through the pipes in the car is interfered with.

My improvement is made to enable the porter or attendant to ascertain the water-level from below, so that it is not necessary to go outside or upon the roof of the car to examine the circulating-drum or water-vessel.

In the drawings, Figure 1 is a section showing the expansion-drum or water-vessel with my improved gage-cocks applied to the same. Fig. 2 is a section transversely of the water vessel or drum.

B is the expansion vessel or drum. C is the rising hot-water pipe, and D is the descending pipe to the heating-coils within the car.

There are usually three gage cocks, 1, 2, and 3, which in themselves are of any desired construction, and these are placed below the drum

or expansion-vessel in a position where they are convenient of access. From each gage-cock there is a small pipe passing up and into the lower side of the expansion-vessel, and rising within such vessel to different heights, the upper end of the pipe 4 being at low-water level, the upper end of the pipe 5 being at the standard water-level, and the upper end of the pipe 6 rising still higher and corresponding to the highest water-level in the drum or boiler. In consequence of these pipes 4, 5, and 6 being small they will hold little water, or water of condensation, and the cock 1, when open, will denote whether the water is above the high-water level, the cock 2 whether it is above the standard water-level, and the cock 3 whether the water is too low. By this means I am able to place the gage-cocks considerably below the boiler, drum, or expansion-vessel, and to ascertain with reliability the position of the water in the vessel.

I do not claim a cock below a vessel with an adjustable tube extending up to the level of the liquid in such vessel, as the same has been made use of.

I claim as my invention—

The combination, with the drum, boiler, or expansion-vessel, of gage-cocks placed below the water-level and at a place convenient of access, and small pipes leading from the gage-cocks up into the boiler, drum, or expansion-vessel, and terminating at different heights for ascertaining the water-level, substantially as set forth.

Signed by me this 17th day of November, 1886.

W. C. BAKER.

Witnesses:

GEO. T. PINCKNEY,
WILLIAM G. MOTT.