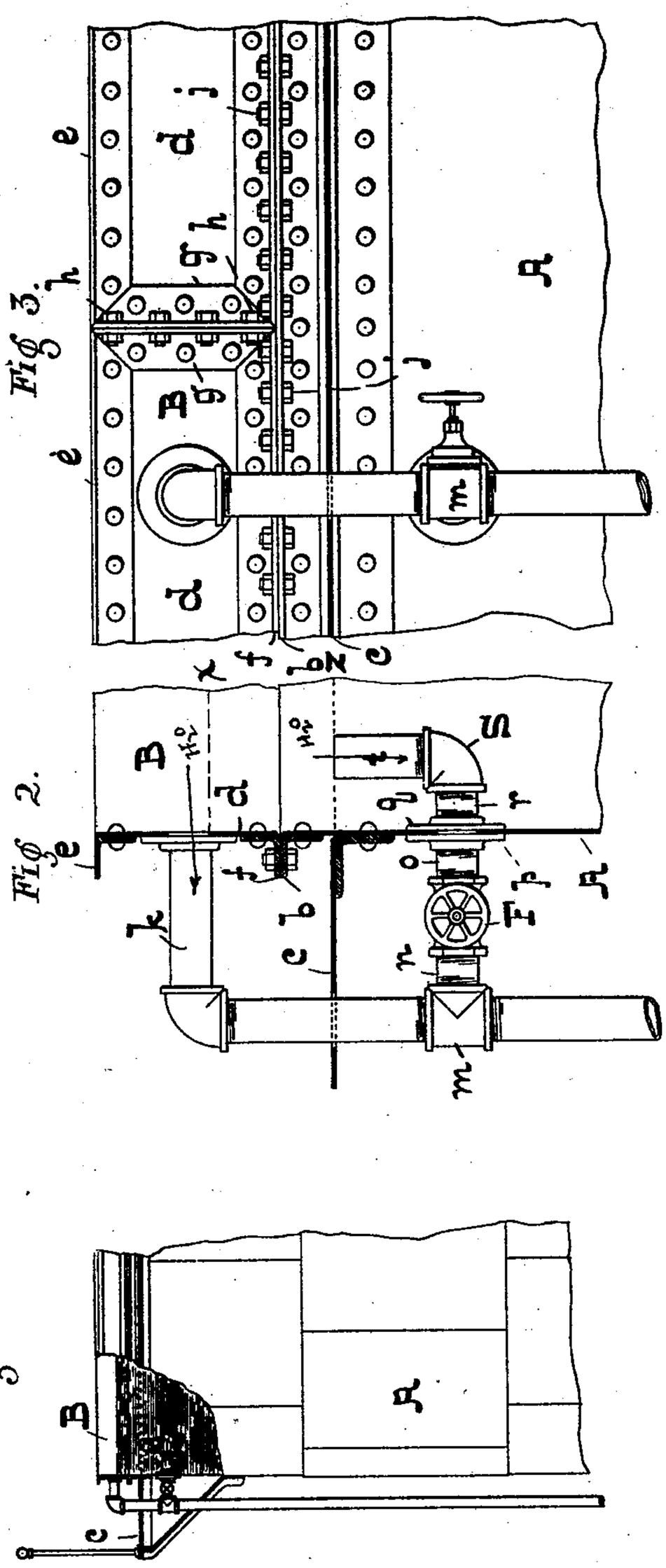
(No Model.)

F. MAYER.

GAS HOLDER TANK.

No. 507,022. Patented Oct. 17, 1893.



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UNITED STATES PATENT OFFICE.

FREDERICK MAYER, OF BALTIMORE, MARYLAND.

GAS-HOLDER TANK.

SPECIFICATION forming part of Letters Patent No. 507,022, dated October 17, 1893.

Application filed May 6, 1893. Serial No. 473,239. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK MAYER, of the city of Baltimore and State of Maryland, have invented certain Improvements in Gas-Holder Tanks, of which the following is a specification.

The object of this invention is to construct a plate metal gas-holder tank in such manner that the portion thereof at the water line when it shall have become injured by corrosion, may be removed and another substituted therefor; and the said invention consists, first, in providing the tank with a removable top rim extension, which can be easily replaced when corroded; and in providing means whereby the water line may be lowered during the substitution of the new for the old extension.

In the further description of the said invention which follows, reference is made to the accompanying drawings forming a part hereof, and in which—

Figure 1 is a side elevation of a part of a gas holder tank provided with the present invention, certain parts of the tank being broken away to show the interior. Fig. 2 is an enlarged section of a part of the tank and its connections, and Fig. 3 an enlarged exterior view of the same.

Referring to the drawings, A represents the gas holder tank proper having at the upper edge the top angle iron curb *b* and the platform *c*.

B is the top rim extension which consists of segmental plates *d* having the angle iron segments *e* and *f* at the upper and lower edges, respectively, and the angle iron connecting pieces *g*. These segments can however be formed of channel iron. The segments are connected by the bolts *h* and the same are united to the top curb *b* by bolts *j*. From this construction it will be seen that any one, or any number of the segments may be easily removed and replaced by new ones. The segmental plates are preferably made of iron, galvanized, so that they may not be subjected to the same corrosion as are unprotected plates. The regular water level is represented by a dotted line marked *x*, and the regular overflow pipe is denoted by *z*.

At a proper distance below the platform, the overflow pipe *k* is provided with a tee *m* into which is screwed a nipple *n*, and between this nipple and another *o* attached to the tank by a flange P is an ordinary globe valve F. On the inside of the tank is another flange *q* having a nipple *r* and to this nipple is screwed an elbow S having a piece of pipe *t* which extends to the temporary water level denoted by a dotted line marked *z*. It will be seen that this temporary water level is below the top rim extension B.

Under ordinary circumstances, the globe valve F is closed and the overflow of water is by means of the pipe *k*. When however any part, or the whole, of the rim extension becomes so corroded that it should be replaced by another segment, or an entire rim extension, the globe valve F is opened, when the water level is lowered to the line *z*. The overflow pipe or the portion thereof above the tee *m* is then detached and the injured segment or the whole top rim extension removed and replaced by another, when the valve F is closed and the water rises to the original level *x*.

It will be seen that with the invention described, the life of a tank may be lengthened to almost any extent, as the only serious deterioration takes place at the water level.

I claim as my invention—

A gas holder tank having a removable top rim extension connected to the tank proper by flanges and bolts, the interiors of the said tank and the top rim extension being in communication and arranged so that water may flow from one to the other, combined with an overflow pipe, a branch overflow pipe with its upper end below the junction of the tank proper and the said top rim extension, and a valve in the said branch overflow pipe, substantially as, and for the purpose specified.

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