

(No Model.)

J. W. ABRAHAMSON.
TANK.

2 Sheets—Sheet 1.

No. 576,993.

Patented Feb. 16, 1897.

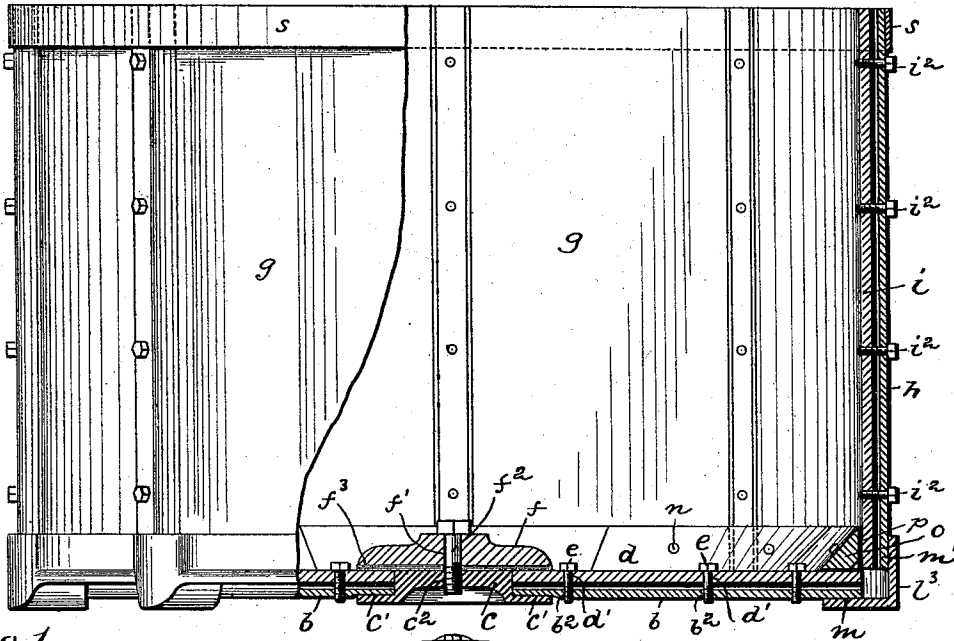


Fig. 1.

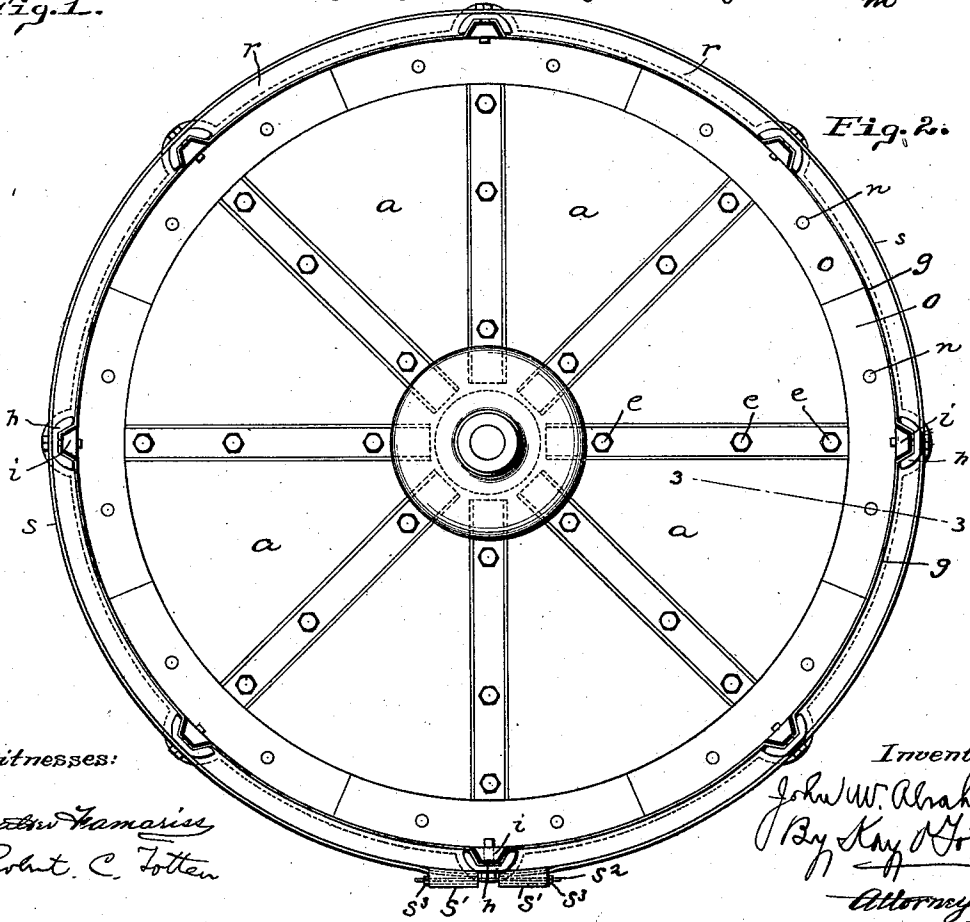


Fig. 2.

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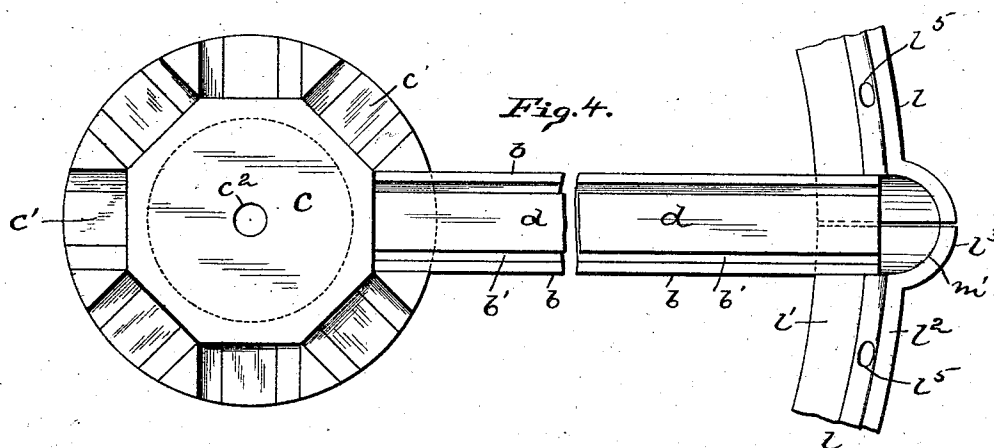
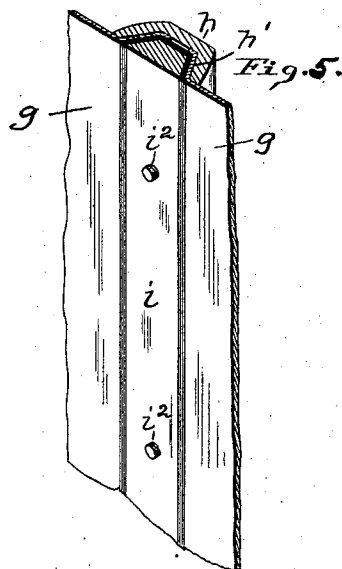
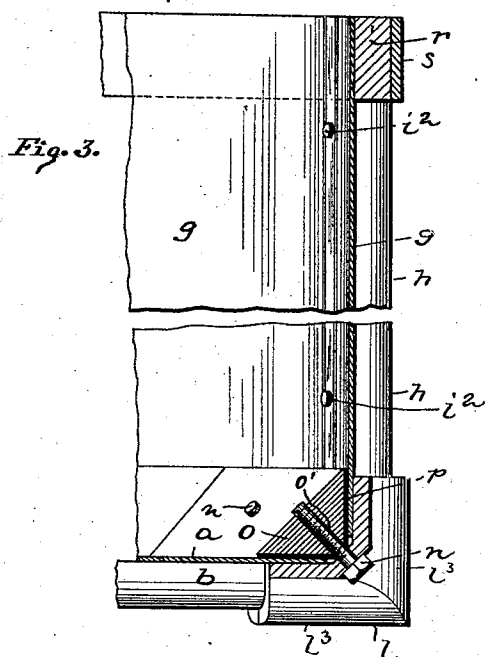
(No Model.)

2 Sheets—Sheet 2.

J. W. ABRAHAM'S.
TANK.

No. 576,993.

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Witnesses:

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UNITED STATES PATENT OFFICE.

JOHN WM. ABRAHAMS, OF ALLEGHENY, PENNSYLVANIA.

TANK.

SPECIFICATION forming part of Letters Patent No. 576,993, dated February 16, 1897.

Application filed June 20, 1896. Serial No. 596,295. (No model.)

To all whom it may concern:

Be it known that I, JOHN WM. ABRAHAMS, a resident of Allegheny, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Tanks; and I do hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to tanks for the storage of oil, water, gas, grain, or anything else to which it may be found applicable.

The invention is closely related to an invention set forth and claimed in an application filed by me of even date herewith, Serial No. 596,294, in which is described a certain new and useful improvement in portable tanks.

In the accompanying drawings, Figure 1 is a side elevation, partly in section, of a tank embodying my invention. Fig. 2 is a top view. Fig. 3 is an enlarged section on line 3 3, Fig. 2. Fig. 4 is a detail view of one of the bottom ribs and the manner of connecting same. Fig. 5 is a detail view.

Like letters indicate like parts in each of the figures.

The bottom of the tank is composed of a series of segments *a*, of sheet metal, which have their radial edges bent to engage the channels *b'* of the radial ribs *b*. These ribs *b* radiate from a central base *c*, said base having seats *c'* formed therein to receive the inner ends of said ribs. The ribs *b* and the seats *c'* are made outwardly flaring, and when the edges of the segments *a* are bent to engage the channels *b'* strips *d* are fitted into said channels to hold the edges of the segments securely therein. Packing of tar-paper or other suitable material is also inserted in the channels to add to the tightness of the joint. The strips *d* have openings *d'* formed therein and the ribs *b* have threaded openings *b²*. Through these coincident openings pass the threaded bolts *e*. By tightening up the bolts *e* leakage is prevented at any of the joints.

The base *c* has a threaded opening *c²*. A plate *f*, having an opening *f'*, rests on said base, and a threaded bolt *f²*, passing through said openings *f'* *c²*, unites said plate to said base. Tar-paper *f³* is interposed between said plate and base.

The sides of the tank are made up of sheet-metal plates connected in practically the same manner as the bottom segments. These side plates *g* have their edges bent to engage the channels *h'* of the vertical ribs *h*. Strips *i* are then fitted into the channels *h'*, the tar-paper having been first interposed. The bolts *i²* unite the strips to the ribs and make the joints tight.

The sides and bottom, formed in the manner described, are connected in the following manner: The number of vertical ribs *h* correspond to the number of bottom ribs *b*, and said ribs are first brought into coincidence with each other. Arc-shaped strips of metal *l*, having the inwardly-projecting flanges *l'* and the upwardly-projecting flanges *l²*, engage the outer edges of the segments *a* and the lower edges of the side plates *g*, respectively, around the bottom of the tank. The outer edges of the segments *a* and the lower edges of the side plates *g* are not bent, but remain straight. The strips *l* have at the ends thereof the enlargements *l³*, so that when the strips are in position the enlargements of the adjoining strips together form seats *m m'* for the reception of the ends of the ribs *b* and *h*, respectively. The strips *l* have openings *l⁴*, formed at the juncture of the two flanges, where the strips are slightly flattened, as at *l⁵*, to provide for the insertion of the bolts *n* more readily. These bolts *n* pass through threaded openings *o'* in the arc-shaped strips *o* inside the tank. These arc-shaped strips fit in the corner formed by the juncture of the bottom and sides of the tank and are substantially triangular in cross-section. The tar-paper *p* is interposed between the bottom and sides of the tank and the strips *o*. By tightening up the bolts *n* a very tight joint is obtained between the bottom and sides of the tank. If any leakage occurs around the bottom, the leak may be readily located, and by tightening up the bolts at that point the leak is corrected. The strips *o* preferably break joint with the outer strips *l*.

I have illustrated the tank without a top, but it is apparent that a top such as described in said application may be applied to it. Where no top is employed, strips of wood *r* may encircle the upper edges of the side plates, a band of metal *s* acting to hold said

strips in place. This band of metal has the tongues s' at the ends thereof, with the bolt s^2 passing through coincident openings in same. By turning the nut s^3 this band may
5 be tightened or loosened.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A tank having its bottom and sides formed of sections of sheet-metal plates, ribs
10 having channels therein, said plates having their edges bent to engage said channels, bars fitting in said channels and secured to said ribs, arc-shaped metal strips having up-
wardly-extending flanges engaging the lower
15 edges of the side plates and inwardly-extending flanges engaging the outer edges of the bottom plates, enlargements on the ends of said strips forming seats for the side and bot-
tom ribs, arc-shaped metal strips on the in-
20 terior of the tank, and bolts passing through said strips, substantially as set forth.

2. A tank having its bottom and sides

formed of sections of sheet-metal plates, ribs having channels therein, said plates having their edges bent to engage said channels, bars
25 fitting in said channels and secured to said ribs, arc-shaped metal strips having upwardly-extending flanges engaging the lower edges of the side plates and inwardly-extending flanges engaging the outer edges of the
30 bottom plates, enlargements on the ends of said strips forming seats for the side and bottom ribs, arc-shaped metal strips on the interior of the tanks, and bolts passing through said strips, arc-shaped metal strips on the in-
35 terior of the tank triangular in cross-section, and bolts passing through said strips, substantially as set forth.

In testimony whereof I, the said JOHN WM. ABRAHAMS, have hereunto set my hand.

JOHN WM. ABRAHAMS.

Witnesses:

ROBT. D. TOTTEN,
ROBERT C. TOTTEN.