G. SILLMAN.

SECTIONAL TANK.

APPLICATION FILED FEB. 20, 1913.

1,073,871.

Patented Sept. 23, 1913.

2 SHEETS—SHEET 1.

Fig. 1.

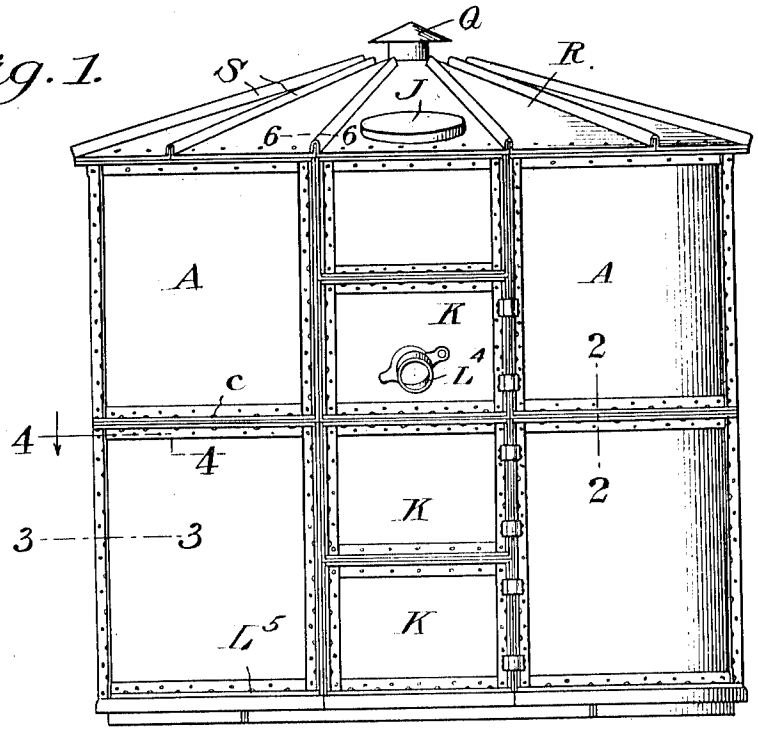


Fig. 2.

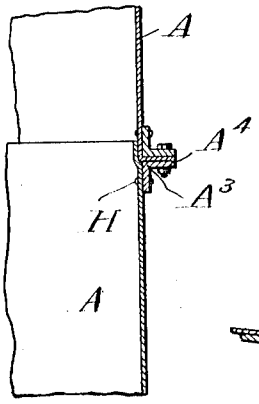


Fig. 3.

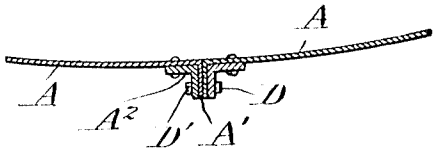


Fig. 4.

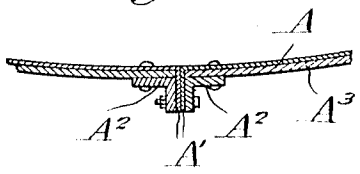


Fig. 6.

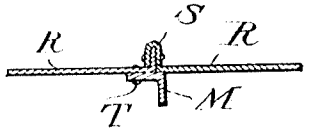
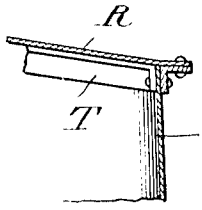


Fig. 8.



WITNESSES

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2 SHEETS—SHEET 2.

Fig. 5.

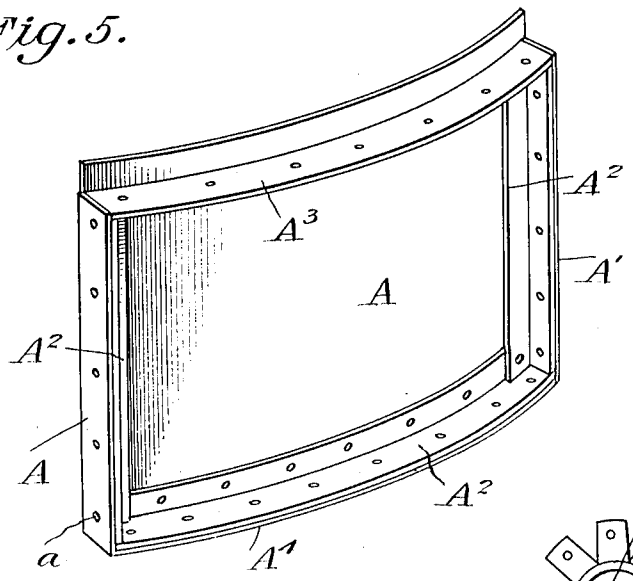


Fig. 7.

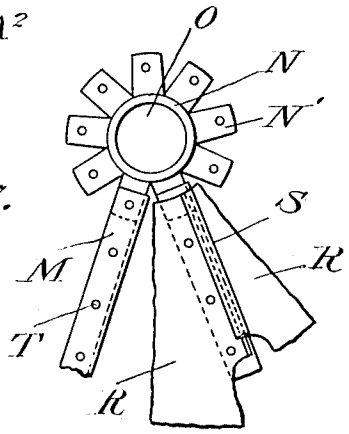
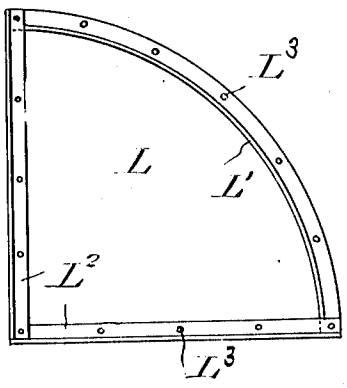


Fig. 9.



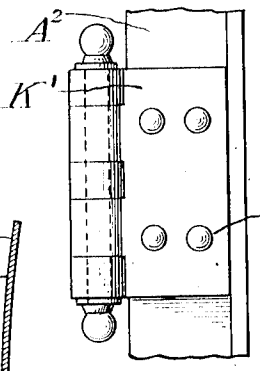
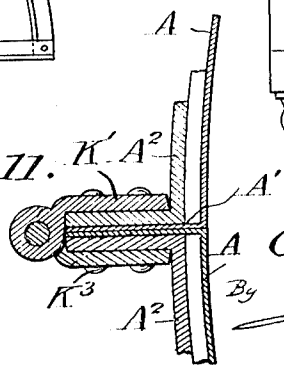


Fig. 10.

Fig. 11.



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UNITED STATES PATENT OFFICE.

GEORGE SILLMAN, OF SPOKANE, WASHINGTON.

SECTIONAL TANK.

1,073,871. Specification of Letters Patent. Patented Sept. 23, 1913.

Application filed February 20, 1913. Serial No. 749,701.

To all whom it may concern:

Be it known that I, GEORGE SILLMAN, a citizen of the United States, residing at Spokane, in the county of Spokane and State of Washington, have invented certain new and useful Improvements in Sectional Tanks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in sectional tanks for holding grains, liquids or other materials, and the object in view is to produce a simple and efficient tank which will be easily constructed and durable and so constructed that the parts may be readily built up for different capacities, and also that it may be shipped in knock down form and readily and easily assembled and set up at destination.

My invention consists of various details of construction and combination and arrangements of parts which will be hereinafter fully described, shown in the accompanying drawings and then specifically defined in the appended claims.

I illustrate my invention in the accompanying drawings, in which:—

Figure 1 is a side elevation of a tank made in accordance with my invention. Fig. 2 is a vertical central sectional view taken on line 2—2 of Fig. 1. Fig. 3 is a cross section on line 3—3 of Fig. 1. Fig. 4 is a sectional view on line 4—4 of Fig. 1. Fig. 5 is a detail perspective view showing one of the sections of side plates of which the tank is composed. Fig. 6 is a sectional view on line 6—6 of Fig. 1. Fig. 7 is a detail view of a part of the top of the tank. Fig. 8 is a vertical sectional view through one of the side plates and a portion of the top of the tank. Fig. 9 is a bottom plan view of one of the flanged sections which form the bottom of the tank. Fig. 10 is a detail in elevation of one of the hinges fastening the door to the tank. Fig. 11 is a cross-sectional view through the hinge shown in Fig. 10.

Reference now being had to the details of the drawings by letter, A, A designate a series of curved metallic plates which comprise the sides of the tank, and each plate is provided upon two of its opposite sides with flanges A′ and a flange A^4 at its bottom, while the upper end of each plate is without a flange and extends a short distance above the flanges A′. Each of the said flanges A′ and A^4 is provided with apertures *a* for the reception of bolts or rivets C whereby the plates may be held together. Secured to the outer face of each curved plate A adjacent to its end flanges and the bottom flange are the angled bars A^2 and a similar angle bar A^3 is fastened to the outer face of each plate a short distance below its upper end, by means of rivets H, as shown clearly in Fig. 2 of the drawings.

Bolts D are passed through registering apertures in said angle bars A^2 and the flanges A′ at the opposite ends of the plates, as shown in Fig. 3 of the drawings, the bolts being held in place by means of nuts D′ thereon. The angle bars A^2 are held to their respective plates through the medium of the rivets C. Upon reference to Fig. 2 of the drawings, it will be noted that the top portion of each plate A, above the angle bar A^3, projects above the flange A^4 at the bottom of the superimposed plate.

The bottom of the tank is made up of a plurality of plates, one of which is shown in Fig. 9 of the drawings and designated by letter L. About the marginal edge of the section L are the angle bars L′ and L^2, the former of which is curved and the others straight and at right angles to each other, the section shown in Fig. 9 forming one-fourth of the bottom of the tank. Said angle bars L′ and L^2 are provided with apertures L^3 for the reception of rivets, bolts or other fastening means.

In assembling the parts of the tank, the several sections L are bolted or riveted together and the plates A are bolted to the curved marginal edges of the plates L by passing bolts or rivets L^5 through the registering apertures in the flanges at the lower ends of the plates L and the apertures L^3.

The tank is provided with doors, as shown in Fig. 1 of the drawings and designated by letter K. Each door is mounted upon hinged plates K′, details of which are shown in Figs. 10 and 11 of the drawings, the leafs of the hinge being held by means of rivets K^3 to the flanges of the plates A and the angle bars. In one of the doors I have

shown a grain spout L^4 through which the grain or any other commodity contained in the tank may be dispensed.

The roof of the tank consists of a central spider, designated by letter N, a detail of which is shown in Fig. 7 of the drawings, and which has a central opening O for the reception of a ventilator Q. Said spider has arms N′ leading therefrom which are apertured and adapted to be held by any suitable fastening means to the angled rafter bars M, and the roof plates, which are tapering and designated by letter R, have curved flanges S, as shown clearly in Fig. 6 of the drawings, and which are adapted to fit over each other and held in position by means of rivets T. The roof is provided with a manhole covered by the closure J.

By the provision of a tank made in accordance with my invention, it will be noted that means is provided whereby the sections of the tank may be replaced, if desired, for any purpose and are interchangeable, such as for building up to increase the capacity of the tanks, the joints being reinforced and made air and liquid tight.

What I claim to be new is:—

1. A sectional tank comprising a wall made up of a series of tiers of concaved plates, the bottom and the vertical edges of each plate of the lower series having a flange projecting outward therefrom, the upper edge of each plate of the lower series extending above the upper ends of said vertical flanges, angle plates fastened to each of said flanges and to the outer face of the plate, an angle bar fastened intermediate said vertical flanges and flush with the tops thereof and resting upon the angle bars which are fastened to the vertical flanges, the lower end of each plate of the upper series overlapping the portions of the lower tier of plates, which project above the vertical flanges thereof and terminating in flanges engaged thereby, and angle clamping bars resting upon the flanges at the lower ends of the upper tier of plates, and bolts passing through the angle bars which engage the flanges at the lower ends of the upper tier of plates, as set forth.

2. A sectional tank comprising a wall made up of a series of tiers of concaved plates, the bottom and the vertical edges of each plate of the lower series having a flange projecting outward therefrom, the upper edge of each plate of the lower series extending above the upper ends of said vertical flanges, angle plates fastened to each of said flanges and to the outer face of the plate, an angle bar fastened intermediate said vertical flanges and flush with the tops thereof and resting upon the angle bars which are fastened to the vertical flanges, the lower end of each plate of the upper series overlapping the portions of the lower tier of plates, which project above the vertical flanges thereof and terminating in flanges engaged by angle clamping bars resting upon the flanges at the lower ends of the upper tier of plates, bolts passing through the angle bars which engage the flanges at the lower ends of the upper tier of plates, the flanges at the ends of the plates being disposed between the vertical angle bars and the adjacent ends of the plates, and means for holding said vertical angle bars in clamping relation with said end flanges, as set forth.

In testimony whereof I hereunto affixed my signature in the presence of two witnesses.

GEORGE SILLMAN.

Witnesses:
M. J. McCalmont,
M. E. Dawes.