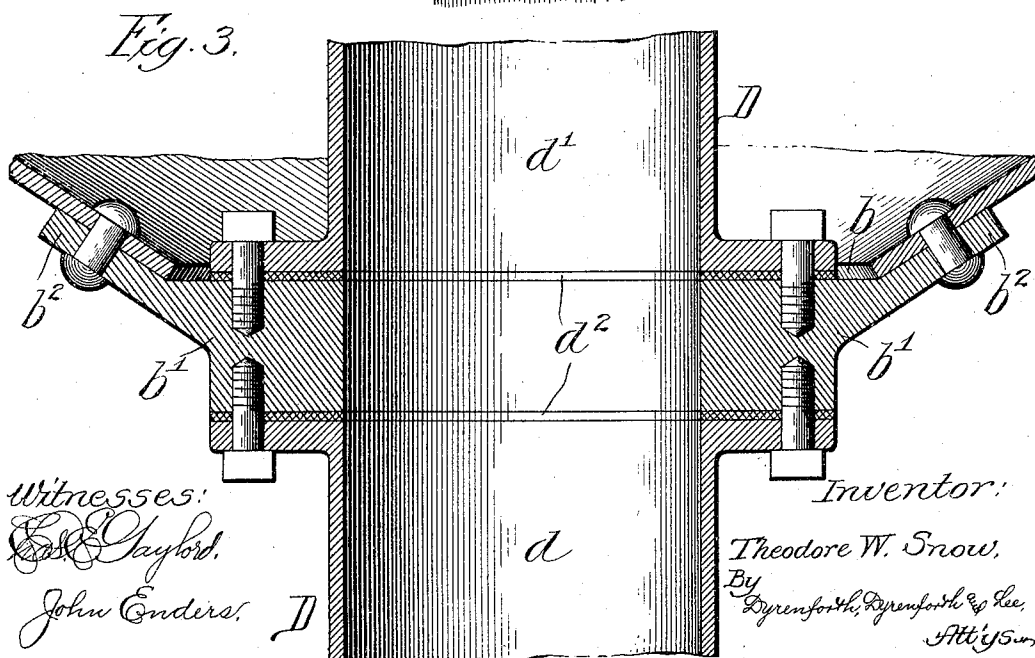
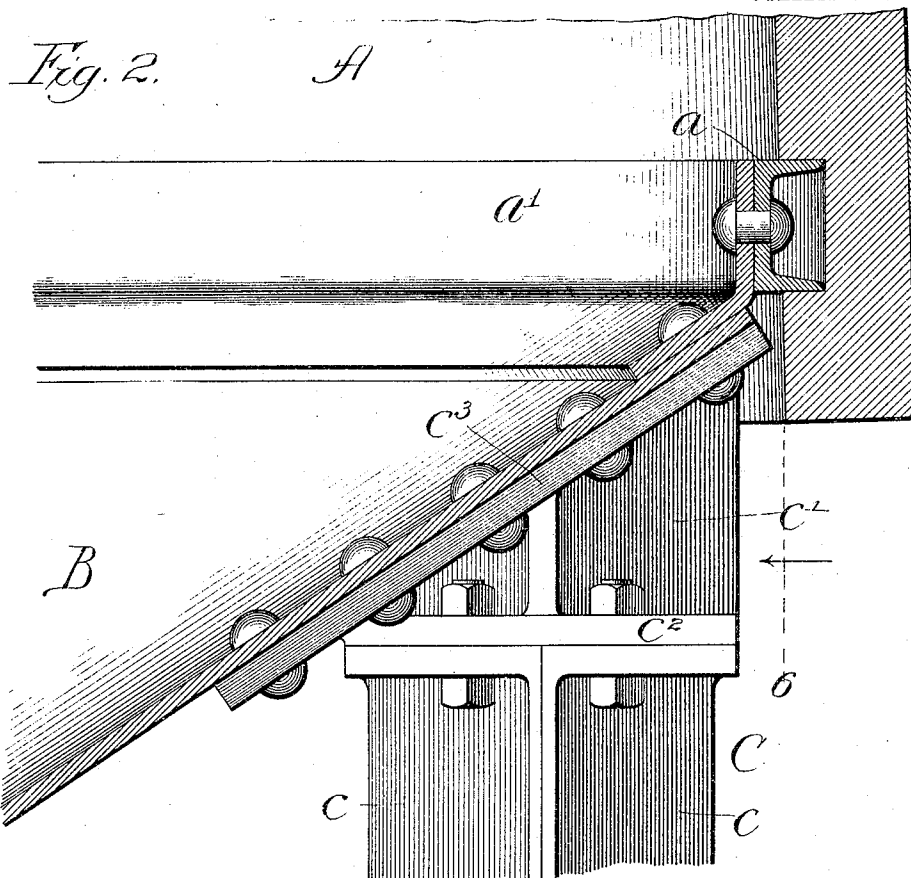


T. W. SNOW.

TANK.

APPLICATION FILED NOV. 19, 1904.

3 SHEETS—SHEET 2.



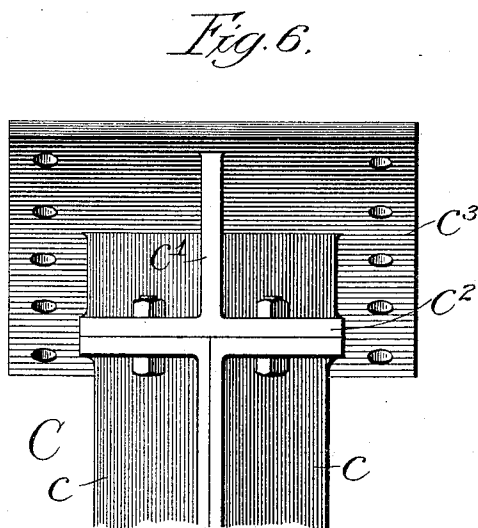
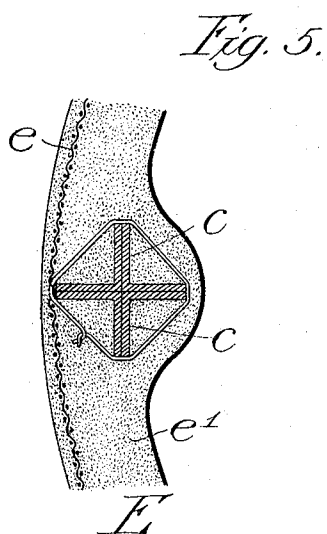
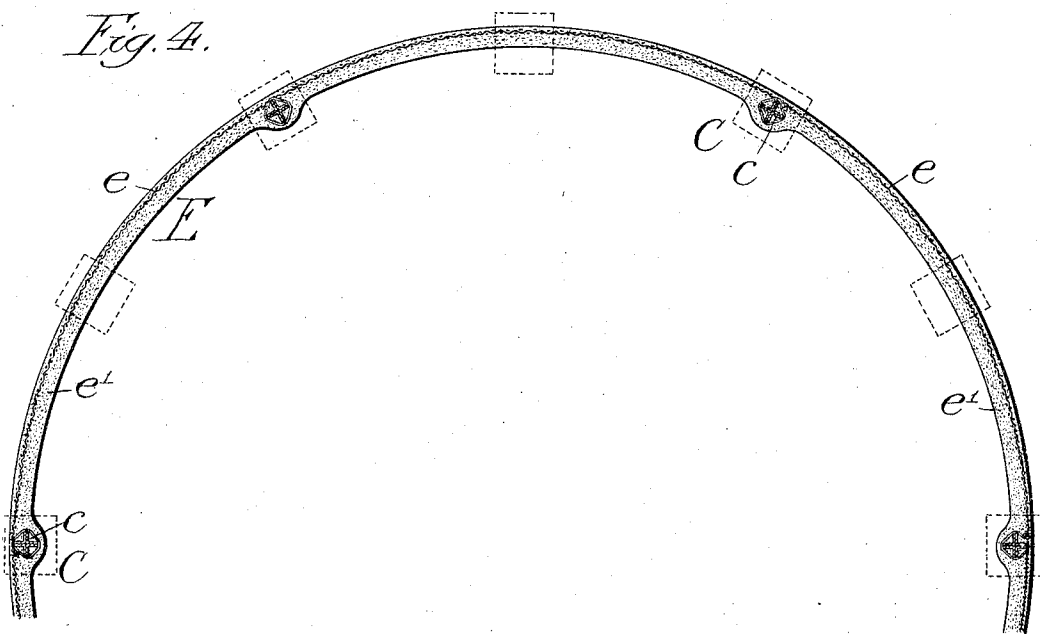
No. 783,148.

PATENTED FEB. 21, 1905.

T. W. SNOW.
TANK.

APPLICATION FILED NOV. 19, 1904.

3 SHEETS—SHEET 3.



Witnesses:
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UNITED STATES PATENT OFFICE.

THEODORE W. SNOW, OF CHICAGO, ILLINOIS.

TANK.

SPECIFICATION forming part of Letters Patent No. 783,148, dated February 21, 1905.

Application filed November 19, 1904. Serial No. 233,461.

To all whom it may concern:

Be it known that I, THEODORE W. SNOW, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Tank, of which the following is a specification.

My invention relates particularly to railway-tanks; and my primary object is to provide an exceedingly durable, effective, and cheap construction having provision for ready repairs.

In accomplishing my purposes I employ a dished or conical metal bottom having provision for the passage of the outlet-pipe, built-up metal columns with provision for connections with the bottom near its periphery, a wooden body comprising removable and replaceable staves supported on the periphery of said bottom, and steel-reinforced concrete forming a wall embedding said columns and protecting the bottom of the tank and the outlet-pipe thereof.

The invention is illustrated in its preferred embodiment in the accompanying drawings, in which—

Figure 1 is a view, partly in elevation and partly in section, of a tank constructed in accordance with my invention; Fig. 2, an enlarged broken vertical section showing more clearly the manner in which the body of the tank is attached to the bottom thereof; Fig. 3, an enlarged broken vertical section showing the connection between the bottom of the tank and the outlet-pipe which extends there-through; Fig. 4, an enlarged broken section taken as indicated at line 4 of Fig. 1; Fig. 5, a fragmental section similar to Fig. 4, but on a larger scale; and Fig. 6, an outer view at the upper end of one of the columns supporting the tank, the view being taken as indicated at line 6 of Fig. 2.

In the preferred construction of the tank, A represents the body of the tank, comprising wooden staves and hoops binding the staves together; B, a conical or dished bottom formed of sheet metal and having its periphery joined to the staves, as shown in detail in Fig. 2; C, built-up columns (shown six in number) connected with the bottom at or near the periphery thereof; D, an outlet-pipe joined to the downturned apex of the conical bottom, as

shown in detail in Fig. 3; D', a valve operated by a lever D² and of the construction shown in detail in the application of Moses M. Moore, Serial No. 218,345, filed July 27, 1904, and E a reinforced concrete wall joined to the columns C and inclosing the bottom of the tank and the exposed portion of the pipe D.

The tank is provided with a cover of the usual construction. The inner surfaces of the lower ends of the staves are rabbeted to receive the outturned flanges of the circular channel-bar *a*, the web of which is attached by rivets to the upturned flange of a circular angle-iron *a'*. The other flange of the angle-bar forms an obtuse angle with the first-named flange, projecting downwardly and inwardly, and is joined by rivets to the periphery of the conical sheet-metal bottom. At the downturned apex of the conical bottom is an opening *b*, equipped with a cast-metal ring *b'*, having an external upwardly-flaring flange *b''* riveted to the sheet material of the bottom.

Each column C is set upon a suitable base and comprises four angle-irons *c*, arranged to form a cross, as shown in Fig. 5. These angle-bars are provided with end flanges or heads, as shown. Each column C is capped by a casting *c'*, having a horizontal flange *c''*, connected by bolts with the flanges at the upper ends of the angle-bars of the column, and having also an inclined flange *c'''*, connected by rivets with the outer periphery of the sheet-metal bottom and with the conical or downturned flange of the angle-bar *a'*.

The pipe D preferably comprises a lower section *d* and an upper section *d'*, flanged at adjacent ends and joined by bolts to the ring *b'*, gaskets *d''* being interposed between said flanges and the upper and lower surfaces of the ring *b'*, as shown in Fig. 3. The valve B' is placed at a sufficient distance above the apex of the bottom of the tank to insure freedom from contact with the sediment which may collect in the bottom. A flushing-pipe *d'''* is connected with the bottom near the apex thereof, and by this means the sediment may be drawn off from time to time.

The wall E comprises, preferably, a mesh-work *e* of wire or rods joined to the outturned angles of the columns and concrete *e'*, embed-

ding said meshwork and the columns, as would be understood from Figs. 1, 4, and 5. A suitable door (not shown) may be provided for access to the chamber in which the tank-bottom and pipes are inclosed.

It readily will be understood that the improved construction provides against freezing at the pipes and the bottom of the tank, where injury might result from freezing, and that a permanent and substantial base is afforded upon which the body of the tank may be rebuilt as often as may be required, the circular angle-bar *a*, upon which the body of the tank is supported, projecting outside the sub-structure to enable this purpose to be readily accomplished.

What I regard as new, and desire to secure by Letters Patent, is—

1. A tank, comprising a metal bottom, means supporting said bottom near the periphery thereof an annular metal member joined to the periphery of said bottom, and a body comprising staves joined to said annular member, for the purpose set forth.

2. A tank, comprising a sheet-metal bottom, means supporting said bottom near the periphery thereof, an annular metal member joined to the periphery of said bottom and projecting beyond the supporting means, and a body, comprising staves joined to said projecting member, for the purpose set forth.

3. A tank, comprising a conical sheet-metal bottom having an angle-iron with a conical flange joined to the periphery thereof and presenting an upturned flange, a channel-bar joined to said upturned flange and presenting outturned flanges, and a body comprising staves having rabbeted connection with said channel-bar, for the purpose set forth.

4. A tank, comprising a sheet-metal bottom, a body supported thereon, metal columns supporting said bottom near the periphery thereof, a pipe joined to said bottom and having a portion depending therefrom, and a concrete wall joined to said columns and inclosing said bottom and pipe, for the purpose set forth.

5. A tank, comprising a conical sheet-metal bottom, a body supported on the periphery thereof, and columns supporting said bottom, each column comprising members provided at their tops with flanges, and a member interposed between said flanges and the conical surface of the bottom and having horizontal flanges joined to the flanges of said first-named members and inclined flanges joined to the conical surface of the bottom, substantially as and for the purpose set forth.

THEODORE W. SNOW.

In presence of—

WARREN A. LATHROP,
MOSES M. MOORE.