H. E. SPLATER.

GRAIN TANK.

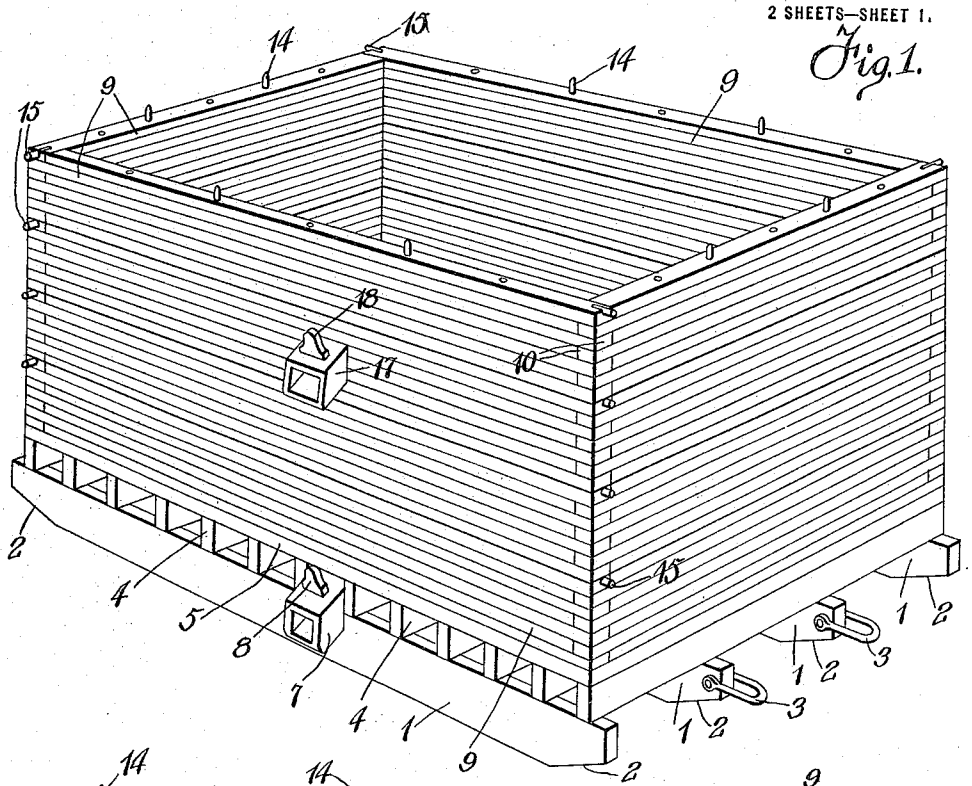
APPLICATION FILED JULY 11, 1916.

**1,219,786.**

Patented Mar. 20, 1917.

2 SHEETS—SHEET 1.

Fig. 1.



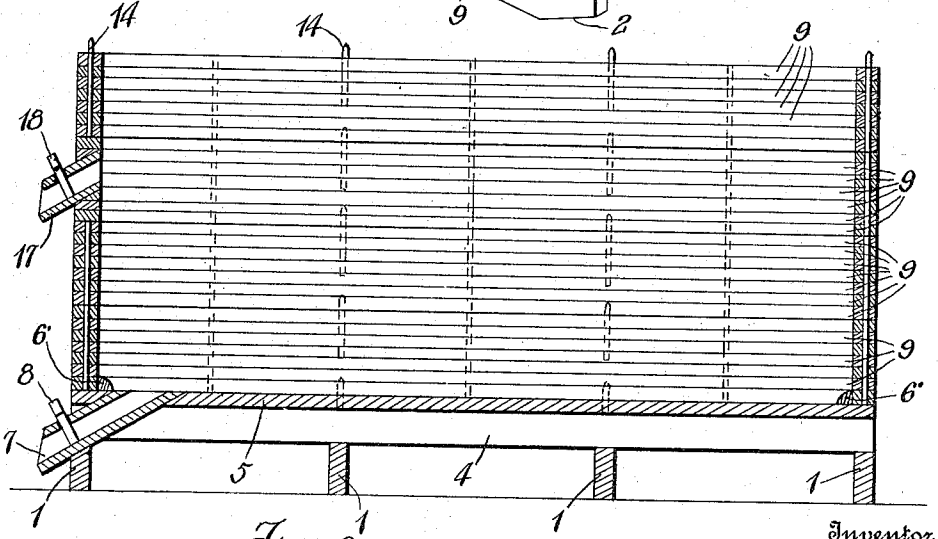




Fig. 2.

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2 SHEETS—SHEET 2.

Fig. 3.

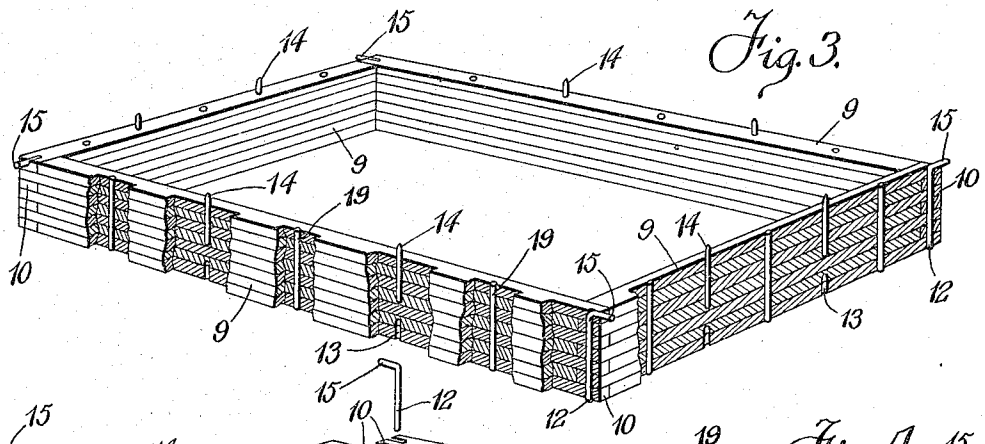



Fig. 4.

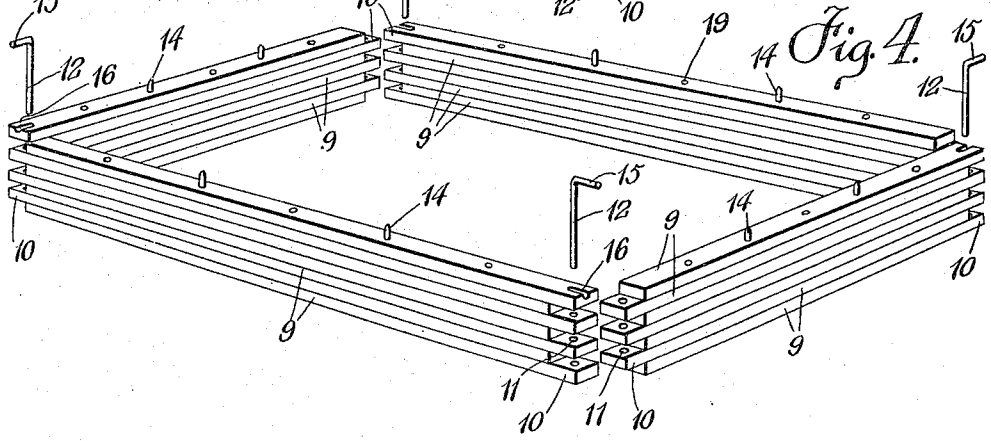
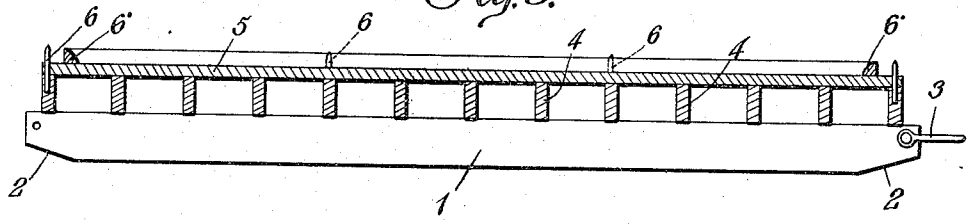



Fig. 5.




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# UNITED STATES PATENT OFFICE.

HENRY E. SPLATER, OF HAY, WASHINGTON, ASSIGNOR OF ONE-HALF TO JAMES V. McCALL, OF HAY, WASHINGTON.

## GRAIN-TANK.

1,219,786. Specification of Letters Patent. Patented Mar. 20, 1917.

Application filed July 11, 1916. Serial No. 108,664.

*To all whom it may concern:*

Be it known that I, HENRY E. SPLATER, a citizen of the United States, residing at Hay, in the county of Whitman and State of Washington, have invented certain new and useful Improvements in Grain-Tanks, of which the following is a specification.

This invention relates to grain tanks, and one of its objects is to provide a tank which may be readily set up at any desired point and be extended to any desired capacity. A further object of the invention is to provide a grain tank of such construction that it may be readily disassembled and brought within a small compass in order to be stored or transported. Further objects of the invention are to provide means for rapidly discharging the grain from the tank and also to provide means whereby the several members of the tank will be securely held together when the tank is set up and in use.

The several stated objects of the invention and other objects which will incidentally appear from the following description are attained in a tank of the character disclosed in the accompanying drawings, and the invention resides in certain novel features which will be particularly pointed out in the appended claim.

In the drawings:

Figure 1 is a perspective view of a tank embodying my improvements;

Fig. 2 is a central transverse section of the same;

Fig. 3 is a perspective view, with parts broken away and in section, of one of the superposed members of the tank;

Fig. 4 is a view similar to Fig. 3, showing the several elements of the tank member partly separated;

Fig. 5 is a longitudinal section through the platform or base.

In carrying out my invention, I employ a base consisting of sills or runners 1 which may be of any desired number and will preferably be of stout timbers having their ends beveled, as shown at 2, whereby they may be readily drawn over the ground, draft-receiving devices 3 being attached to the intermediate sills or runners 1, as clearly shown. Upon these runners or sills 1, I secure a plurality of transverse beams 4 upon which the platform or floor 5 is directly laid. The said platform or floor may be one large plate or may be constructed of tongue and groove flooring, or of any other well-known material, as may be preferred. At intervals around the floor, adjacent the edges of the same, I provide pins 6 which project above the surface of the floor and engage sockets in the superposed tank members or sections, as will presently more fully appear. It will be readily understood that the tank consists of retaining or inclosing walls and the grain will rest directly upon the floor or platform. A strip of molding 6′ may be placed on the floor to properly center and retain the superposed section thereon and prevent leakage of grain.

To facilitate the discharge or withdrawal of the grain, I provide an outlet spout 7 which has its inner upper end secured in an opening through the floor, as shown clearly in Fig. 2, and the said spout extends downwardly and outwardly between two of the beams 4 and projects beyond the adjacent runner or sill 1, as clearly shown. A cut-off or valve 8, which may be of any desired construction and may conveniently be a single plate slidably mounted in the spout to extend entirely across the bore of the same, is carried in the spout and normally prevents the flow of the grain therethrough. When it is desired to withdraw the grain, the cut-off is withdrawn or opened and the grain will then flow by gravity through the spout to be caught in any convenient receptacle. As the floor will be horizontal ordinarily, the grain will be swept toward the discharge spout by a broom or other implement when the supply of grain has been about exhausted. This sweeping or shoveling of the grain toward the discharge spout will only be necessary when practically all of the grain has been withdrawn and may be eliminated entirely if the floor be slightly inclined toward the spout, but in order to permit the tank to be readily set up by unskilled persons, the floor will generally be located in a horizontal plane.

The sides or walls of the tank are constructed of superposed sections and each section consists of a plurality of similar elements. As shown most clearly in Figs. 3 and 4, in constructing each section of the tank, I employ a plurality of timbers or members 9, the dimensions of which will be determined by the dimensions desired for the completed tank. These timbers are placed directly one upon another to the

height intended for each section of the tank and the alternate elements or timbers have their ends projecting beyond the ends of the adjacent sections so that the tongues 10 will be presented at each end of a pile of superposed elements. The timbers or elements are also so arranged that when a pile of elements intended for a side of a tank section is brought into the proper position relative to a pile of elements intended for an end of the tank section, the tongues on one of the walls will be opposed to the recesses or spaces between the tongues on the meeting wall so that the tongues may be engaged in the recesses and the walls fitted together with an intermeshing overlapping connection. Openings 11 are formed through all the tongues and a locking pin 12 is inserted through the registering openings so as to retain the walls in engagement and prevent relative displacement of the same. The lowermost element 9 of each wall section is provided with sockets 13 in its under side to receive the pins 6 on the floor or platform 5 or similar pins 14 projecting from the uppermost element of a subjacent wall section. Lateral displacement of the several wall sections is thus effectually prevented and to permit each superposed wall section to be placed in position and bear directly and squarely upon a subjacent wall section, the locking pins 13 have their upper ends turned laterally to form handle members or keys 15 which are adapted to seat in grooves 16 formed in the upper surfaces of the uppermost elements through which the several pins are respectively inserted. Vertical movement of the pins will thus be prevented and a projecting portion will be provided which may be readily manipulated when it is desired to separate the elements of a wall section.

One wall of an upper section of the tank will have its intermediate elements shortened so that when the elements are assembled in a wall section, an opening will be provided to receive a discharge spout 17 which is of the same construction as the spout 7 and equipped with a cut-off 18, corresponding to the cut-off 8. This upper spout 17 will be so located that a wagon may be driven thereunder and receive the grain directly from the tank, as will be readily understood. To retain the elements of each section in their proper relations, pins 19 may be inserted therethrough, as shown most clearly in Fig. 3 and as will be readily understood.

It is thought the use and advantages of my improved grain tank will be evident from the foregoing description taken in connection with the accompanying drawings. The several timbers or elements 9 are finished so that they will have smooth surfaces and will fit closely together and form tight joints in order that leakage of the grain stored in the tank will be avoided. The timbers or elements may be assembled in a tank section and the section thus formed placed upon the platform or superposed upon a section previously placed in position or the said timbers or elements may be built in the wall directly upon the platform or wall elements or the timbers previously placed in position as may be preferred by the tank builder. Care should be taken, however, to obtain perfect engagement of the pins 6 and 14 with the sockets 13 and the locking pins 12 must be properly inserted at regular intervals so that the several tank sections will be held against collapse in themselves or relative to the superposed or subjacent sections. As the grain is used and the level of the same is lowered within the tank, the upper sections may be removed if desired and a cover or roof will be provided which may be easily handled and readily placed in position over the remaining portion of the tank, as is obvious. By piling the elements 9 upon the platform or floor without securing them together, the material for a large tank may be transported from point to point very readily and the tank then set up at the desired location. In like manner the tank may be reduced to a small compass for storage when the supply of grain has been exhausted.

Having thus described the invention, what is claimed as new is:

A grain tank comprising a base, walls superposed upon the base and each consisting of superposed sections having their ends in staggered relation with the projecting ends in one section fitting between and overlapping the projecting ends in a meeting section, means for preventing relative movement between superposed sections, and locking pins inserted vertically through the overlapping ends of meeting sections, the upper ends of said locking pins being turned laterally and engaging seats in the upper edges of the respective immediately adjacent sections and projecting from between said sections and the superposed sections.

In testimony whereof I affix my signature.

HENRY E. SPLATER. [L. S.]

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."