

(No Model.)

2 Sheets—Sheet 1.

R. H. BARBER.

AUTOMATIC STOCK WATER TANK.

No. 346,702.

Patented Aug. 3, 1886.

Fig. 1.

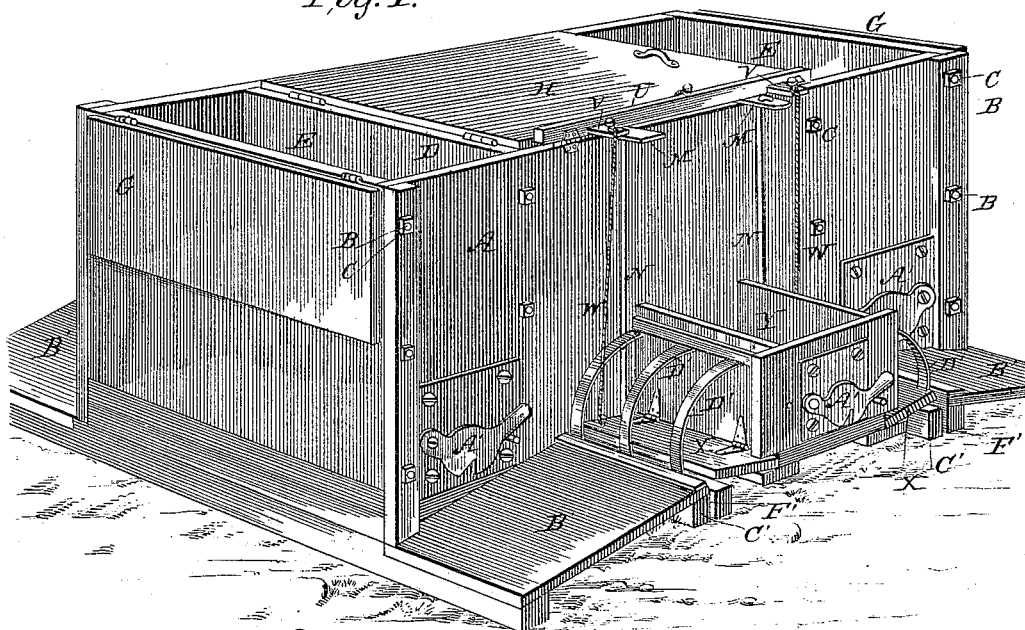
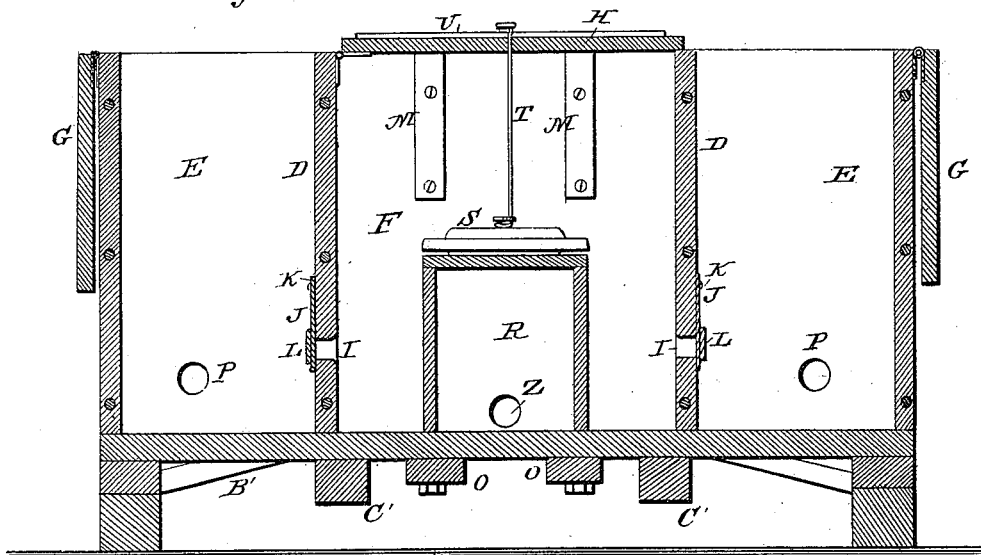


Fig. 2.



WITNESSES:

Fred G. Dieterich
John Kemmon

INVENTOR:

R. H. Barber
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ATTORNEYS.

(No Model.)

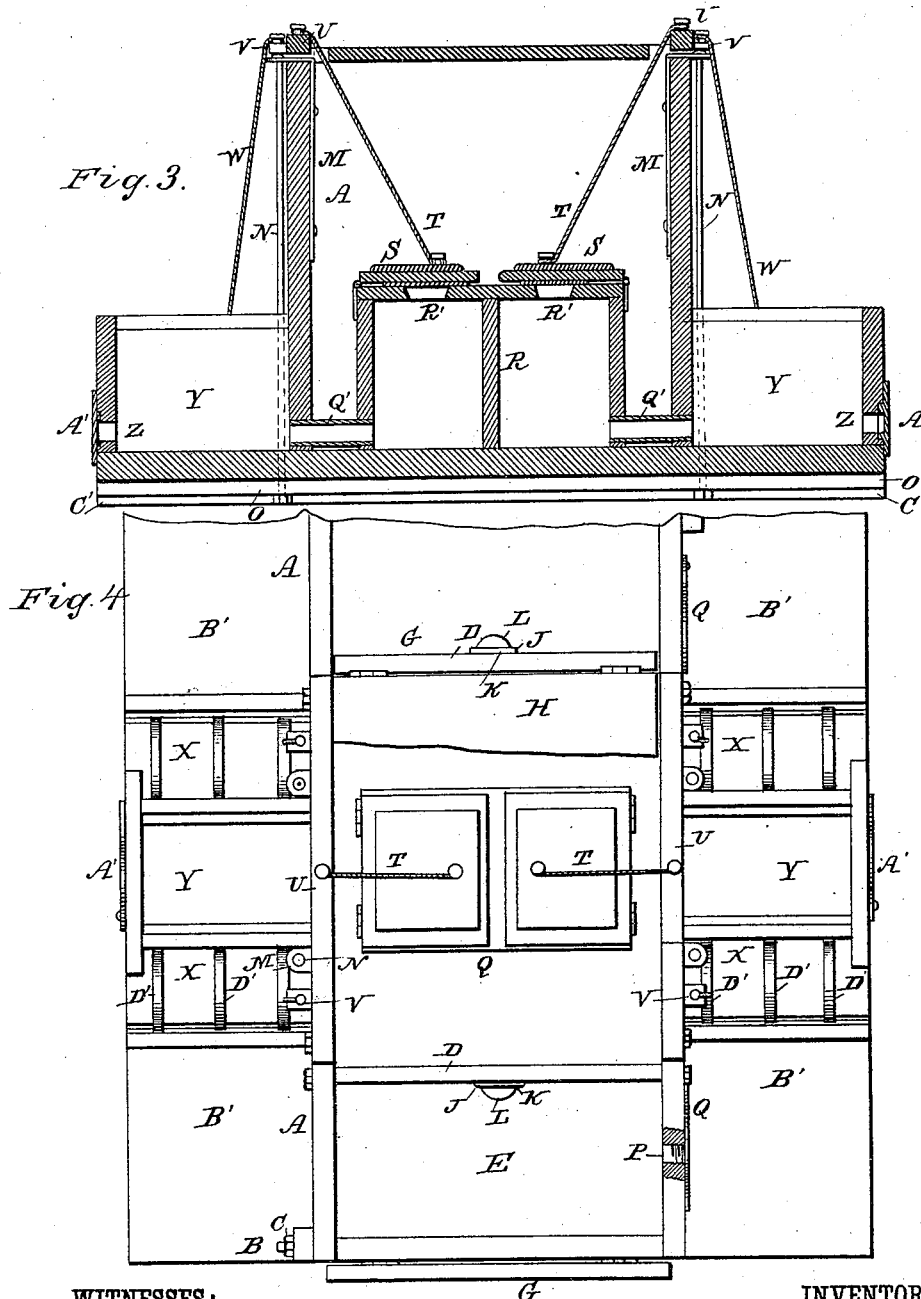
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UNITED STATES PATENT OFFICE.

RICHARD H. BARBER, OF GALENA, KANSAS.

AUTOMATIC STOCK WATER-TANK.

SPECIFICATION forming part of Letters Patent No. 346,702, dated August 3, 1886.

Application filed April 9, 1886. Serial No. 198,359. (No model.)

To all whom it may concern:

Be it known that I, RICHARD H. BARBER, of Galena, in the county of Cherokee and State of Kansas, have invented a new and useful Improvement in Automatic Stock Water-Tanks, of which the following is a specification.

My invention relates to automatic stock water-tanks; and it consists in certain new and useful improvements on the stock water-tank for which Letters Patent of the United States No. 330,667 were granted to me, bearing date of November 17, 1885, as will be hereinafter fully described, and pointed out in the claims.

Referring to the accompanying drawings, Figure 1 is a perspective view of my improved automatic stock water-tank. Fig. 2 is a longitudinal vertical sectional view of the same, taken through the center thereof. Fig. 3 is a vertical cross-sectional view taken through the center of the tank, and Fig. 4 is a top view.

The same letters of reference indicate corresponding parts in all the figures.

Referring to the several parts by letter, A represents the body or main outer casing of the tank, which is formed, preferably, of tongue-and-groove stuff, the sides and ends of the body being firmly secured together by long bolts or rods B, formed at one end with a head, and having their other ends screw-threaded for the reception of suitable nuts, C, the vertical partitions D being likewise secured in the body of the tank by similar rods. The interior space of the body A is divided vertically for its entire height by the partitions D, forming at each end of the body the troughs E and the central reservoir, F. The tops of the troughs E may be closed, when desired, by the hinged tops G, and the top of the reservoir F is also provided with a hinged cover, H, to permit the contents of the reservoir to be inspected, and to afford convenient access into the same, when desired. The water flows from the central reservoir into the end troughs, E, through an opening, I, in each partition D, the said openings being controlled by the check-valves J, consisting each of a leather flap, K, secured at its upper end above the opening I, preferably with the end troughs, and having its lower end weighted at L, so that

the water can only flow into the end troughs, but not out of the same.

To the inner side of each side wall of the central reservoir I secure the brass strips M, the upper ends of which are bent out over the upper edges of the side walls of the reservoir, and through their outer ends are passed the rods N, the lower ends of which extend down through cross-pieces O beneath the frame A, and are there formed with a retaining-head, the said rods materially assisting in strengthening the tank.

The end troughs, which are for horses and cattle, are provided near their lower ends with the discharge-tubes P, controlled by the cocks Q, by means of which the end troughs may be flushed or cleaned, and the outer ends of these discharge-tubes are screw-threaded, so that by attaching suitable hose to the outer ends of the said tubes water may be conveyed to a considerable distance from the reservoir for any desired purpose; or a small trough may be substituted for the hose.

Within the central reservoir is constructed a small tank, Q, having a central partition, R, which divides it into two portions, and having two openings, R', in its top, leading, respectively, into the two divisions of the tank Q. These top openings are normally closed by weighted hinged covers or valves S, connected by chains T to levers U, hinged longitudinally upon the upper edges of the sides of the frame A, as shown, the said levers being formed with short outwardly-projecting arms V, to the outer ends of which are secured the upper ends of chains W, the lower ends of which are secured to treadles X X, which will be hereinafter described. Instead of the chains W, rods might be employed pivotally connected at their upper and lower ends to the levers and the treadles, respectively.

Each division of the small tank Q is connected by a short pipe, Q', with one of the two side troughs, Y Y, the said troughs being constructed precisely similar to the side troughs of my previous patent, No. 330,667, having each an end discharge-opening, Z, controlled by a suitable valve, A', the objects of the said discharge-openings being to flush or clean the said troughs when desired.

B' B' indicate inclined platforms which lead

up to the small side troughs, which are for hogs and sheep, the said platforms resting at their ends upon the cross-pieces C', and between the inner ends of these platforms and the upper portion of the sides of the said trough are secured the curved guard-rods D', for the purpose which will be hereinafter specified. Beneath these guard-rods are hinged to each side of the side troughs, near their lower portions, the treadles E', consisting each of a piece of board of the same width as the platforms, the free outer sides of these treadles resting upon the same cross-pieces which support the inner ends of the platforms, and a vertical slot, F', is cut in the said cross-pieces between the inner ends of the platforms and the free edges of the treadles, through which will fall any dust or dirt rubbing from the feet of the sheep or hogs which come to drink at the small troughs, thereby preventing the treadles from becoming obstructed by the accumulation of dust and dirt which would otherwise occur. To the free inner ends of the treadles are secured the lower ends of the chains or rods which connect the treadles with the short arms of the levers U, the said chains or rods being of such a length as to hold the free edges of the treadles normally somewhat raised, the weight of the weighted covers of the tank Q being sufficient to close the said covers and raise the treadles, as desired.

The operation of my improved automatic stock water-tank is as follows: The water from the reservoir will pass through the openings I into the large end troughs, rising to the level of the body of water in the reservoir, and being prevented from running back into the reservoir as the water is used out of the same into the small side troughs by the check-valves J. When a sheep or hog walks up one of the platforms to either of the side troughs close enough to drink out of the same, its fore feet will rest upon one of the treadles, and its weight will thus force the free end of the treadle down, thus drawing upon the chain W, tilting the longitudinal lever U, and, through the chain T, raising the weighted cover of that side of the tank Q, thereby admitting water from the reservoir into that side of the tank through its top opening, R', the water thus admitted running through the short pipe Q' into the side trough, as will be readily understood. As a treadle, with its operative mechanism, is placed to each side of the small troughs, it will be seen that, no matter to which side the sheep, hog, or other small animal approaches, the water will be automatically admitted into the tank. The curved guard-rods D' prevent hogs or other animals from lying down upon the treadle, and thus drawing all of the water out of the reservoir.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of my improved automatic stock water-tank will be readily understood. By dividing the tank Q into

two sections, as described, and providing each of these sections with a separate cover, each cover being operated from one side only of the reservoir, it will be seen that I prevent all waste of water and furnish perfectly fresh water to each animal that drinks from the small side tanks.

It will be observed that the horse and cattle troughs are too high for use by the smaller animals, while the openings of the small side troughs are too small to permit of horses and cattle drinking therefrom. The main reservoir may be filled from time to time in any suitable manner.

The chains connecting the treadles and weighted covers of the tank Q with the longitudinal levers may be lengthened or shortened for the purpose of regulating the flow of water through the said tank into the side troughs, and to regulate the amount of pressure required on the said treadles to open the weighted covers of the tank, while where rods are used in place of the chains they may be constructed in two sections in such a manner as to admit of their being lengthened or shortened, as required.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination of the reservoir, the tank located within the said reservoir and having the openings normally closed by the weighted covers, the small troughs having the hinged treadles, the short pipes connecting the tank with the said troughs, the levers having the short outwardly-projecting arms, and the chains connecting the said levers with the weighted covers of the tank and connecting the short arms of the levers with the treadles of the side troughs, substantially as described.

2. The combination of the reservoir, the tank located within the said reservoir and having the openings normally closed by the weighted covers, the small troughs having the hinged treadles, arranged as described, the short pipes connecting the tank with the said troughs, the levers having the short outwardly-projecting arms, the chains connecting the said levers with the weighted covers of the tank and connecting the short arms of the levers with the treadles of the side troughs, and the curved guards arranged, as described, above the said treadles.

3. The combination of the reservoir, the tank located within the said reservoir and divided into two sections by the central partition, and having the openings leading from each of the said sections into the reservoir, the weighted covers normally closing the said openings, the side troughs having the hinged treadles, the short pipes connecting the said troughs with the two sections of the tank, the levers having the short arms, and the chains connecting each weighted cover with the lever on its side of the reservoir and connecting the

short arms of the levers to the treadles of their respective side trough, substantially as described.

4. The combination, with the reservoir and
5 a tank having an opening whereby to receive water from the reservoir, of a valve controlling said opening, a trough connected with the tank, a treadle adjacent said trough and connections between the same, and the valve controlling the supply-opening of the tank, substantially as set forth.

5. The combination of the reservoir, the tank having independent compartments, each

provided with openings whereby to receive water from the reservoir-valves for control- 15
ling said openings, the troughs connected one with each of the compartments of the tank, treadles or trips arranged adjacent said troughs, and connections between the treadles of each trough and the valves of their respective troughs, substantially as set forth. 20

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Witnesses:

W. A. WALKER,
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