

W. VOSBURGH.
AUTOMATIC STOCK WATERING TROUGH.

No. 546,793.

Patented Sept. 24, 1895.

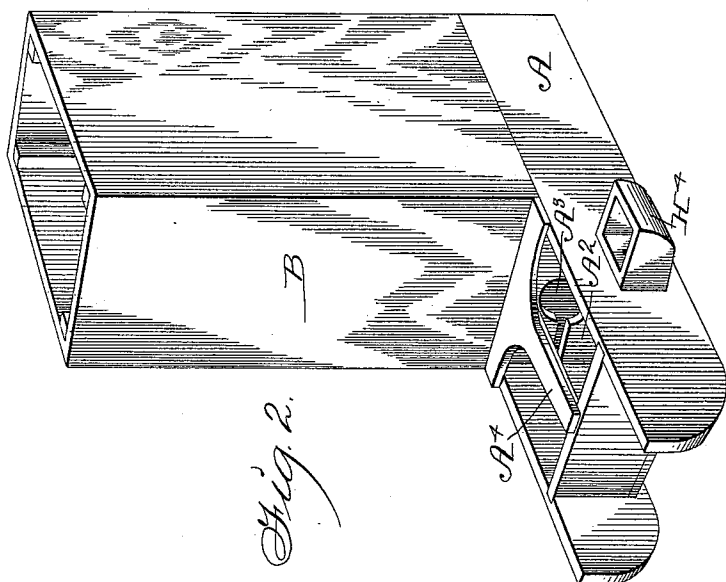


Fig. 2.

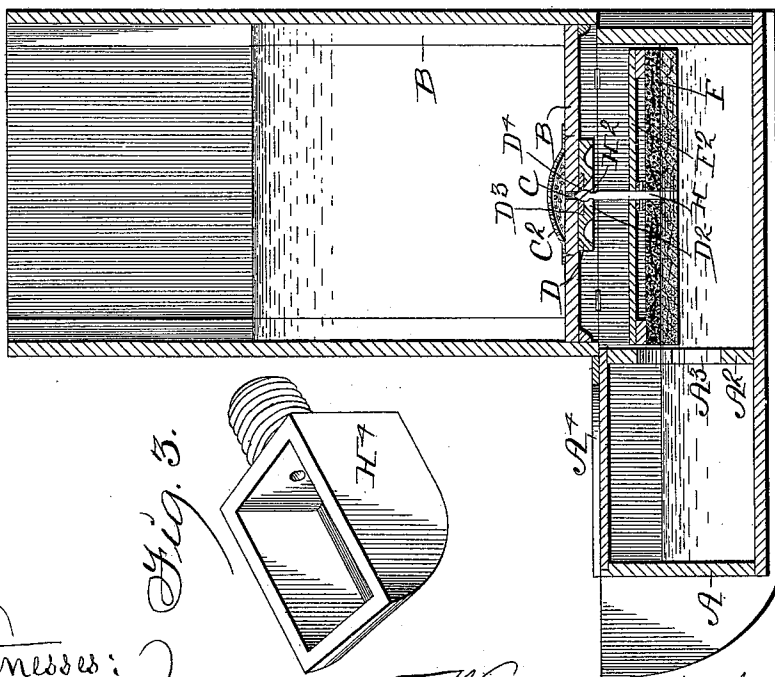
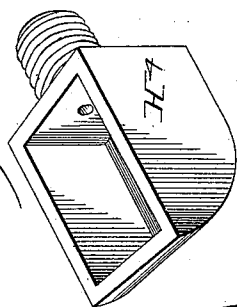


Fig. 1.

Fig. 3.



Witnesses:
F. C. Tate
R. H. Drwig

Inventor: William Vosburgh,
By Thomas G. and J. Ralph Orrig,
Attorneys.

(No Model.)

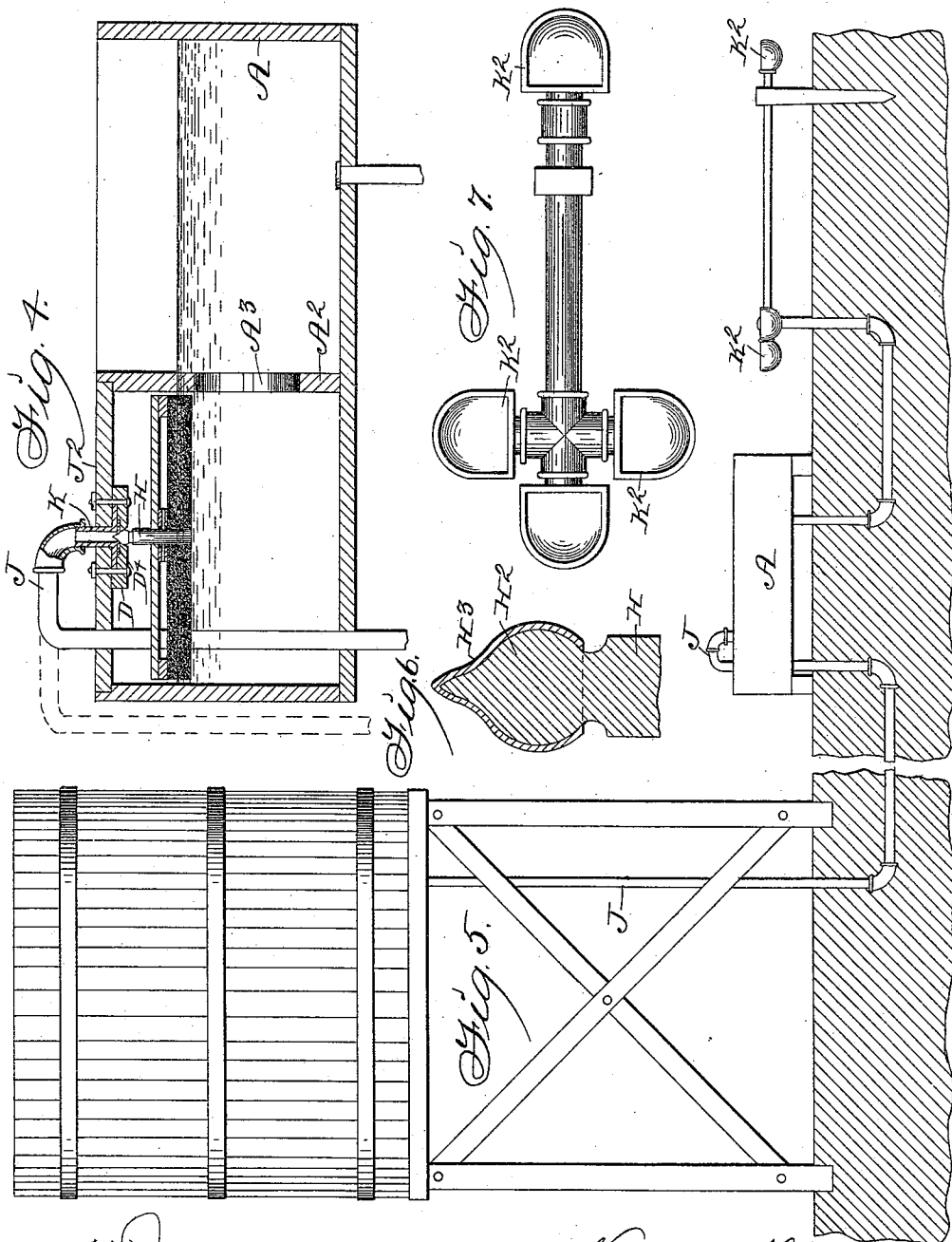
2 Sheets—Sheet 2.

W. VOSBURGH.

AUTOMATIC STOCK WATERING TROUGH.

No. 546,793.

Patented Sept. 24, 1895.



Witnesses:
F. C. Tate.
R. H. Orwig.
Inventor: William Vosburgh,
By Thomas G. and J. Ralph Orwig, Attys.

UNITED STATES PATENT OFFICE.

WILLIAM VOSBURGH, OF DES MOINES, IOWA, ASSIGNOR OF ONE-HALF TO
M. M. FERGUSON, OF SAME PLACE.

AUTOMATIC STOCK-WATERING TROUGH.

SPECIFICATION forming part of Letters Patent No. 546,793, dated September 24, 1895.

Application filed January 19, 1895. Serial No. 535,443. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM VOSBURGH, a citizen of the United States of America, residing at Des Moines, in the county of Polk and State of Iowa, have invented an Improvement in Automatic Stock-Watering Troughs, of which the following is a specification.

The object of this invention is to produce an automatically-operating valve for stock-watering troughs adapted to maintain the water in the trough at any certain predetermined height, said valve to be of simple, cheap, and durable construction and readily accessible for repair or replacement at all times.

My invention consists in certain details in the construction of the valve and in the arrangement and combination therewith of the various other parts of the device, as herein-after set forth, pointed out in my claim, and illustrated in the accompanying drawings, in which—

Figure 1 is a vertical longitudinal sectional view of a watering-trough and supply-tank with my improved valve applied thereto. Fig. 2 is a perspective view of the same. Fig. 3 shows one of the drinking-cups detached. Fig. 4 is a sectional view of a modified form of drinking-trough supplied by a pipe. Fig. 5 is a diagrammatical view showing a drinking-trough supplied from a distant tank and having a number of drinking-cups connected therewith. Fig. 6 is a sectional view of the end of the valve. Fig. 7 is a top view showing the arrangement of the drinking-cups to be connected with the drinking-trough.

Referring to the accompanying drawings, the reference-letter A is used to indicate a watering-trough, which may be of any desirable size and shape. It is provided with a vertical transverse partition A² near its one end, having an opening A³ therein of a size large enough to admit a person's hand, and a guard A⁴ is secured to the top of the trough to prevent animals from getting into the trough and at the same time permitting them to drink freely from the trough.

B indicates a water-containing tank, which may be of any desirable size and shape, resting on top of the tank A, above the open end thereof, and hinged thereto at one side. A straight bore C is formed in its bottom above

the center of the tank, said opening being preferably protected by a screen C².

The valve-seat is composed of a wooden block D, having a central opening with its sides flared outwardly and downwardly at D² and a recess D³ in its top surface adapted to admit a flexible washer D⁴ with a central bore. This block D is adapted to be secured to the under side of the water-tank B, with the opening in the washer D⁴ coinciding with the bore C in the bottom of the tank. This block may be secured by nails or any common way, and it will be obvious that it may be quickly and easily applied to a water tank or barrel and the washer or valve-seat firmly held in place.

F indicates a float placed in the end of the watering-trough between the partition A² and the end and is of a size and shape adapted to nearly engage all sides of the trough, so that it may rise and fall with the water in an approximately vertical plane. It is preferably composed of a cork base with a wooden top piece F² to strengthen the float and keep the cork from warping.

The valve proper consists of a straight upright H, secured to the central portion of the float and having a rounded and tapered top H², preferably covered with rubber H³, adapted to enter the opening in the block D and close the opening in the valve-seat, thus shutting off the flow of water from the supply-tank to the trough when the float is raised. The rounded valve engages the valve-seat tightly if at an angle relative to the valve-seat.

H⁴ indicates a drinking-cup having a screw-threaded pipe projecting from one side adapting it to be screwed into the side of a trough.

In the modified form shown in Figs. 4 and 5 the containing tank is located at a point distant from the watering-trough, and has a top piece J², to which the block D, carrying the valve-seat, is secured by bolts. A short pipe-section K, flared outwardly at its lower end, is extended through said top piece J², and the supply-pipe is screwed on its top. A common system for the distribution of water is also shown, comprising a pipe leading from the trough to a point distant and on the same level as the normal water-level of the trough and having a series of drinking-cups K² connected therewith.

In practical use it will be obvious that the parts are all simple, cheap, and easily made without expensive machinery, and that they may be quickly applied to a watering-trough and supply-tank. The water will first be permitted to flow freely through the opening in the bottom of the supply-tank, and as the water rises in said trough the valve will be forced in said opening in the block and against the rubber valve-seat and the supply cut off.

Access may be easily had to the valve-seat and valve by tilting the supply tank or trough, which may easily be rinsed when in said position.

Having thus described my invention, what I desire to secure by Letters Patent of the United States therefor is—

In an automatic stock watering trough, the combination with a suitable trough, of a top piece on said trough having a round opening communicating with a source of water supply, a block having an opening with inclined sides, secured to the under side of the top piece, a flexible washer mounted in the top of said block and having a central opening above the opening in the block, a vertically movable float in the tank, an upright secured to the float, and having an approximately spherical top with a central tapered projection, substantially as set forth.

WILLIAM VOSBURGH.

Witnesses:

J. RALPH ORWIG,
THOMAS G. ORWIG.