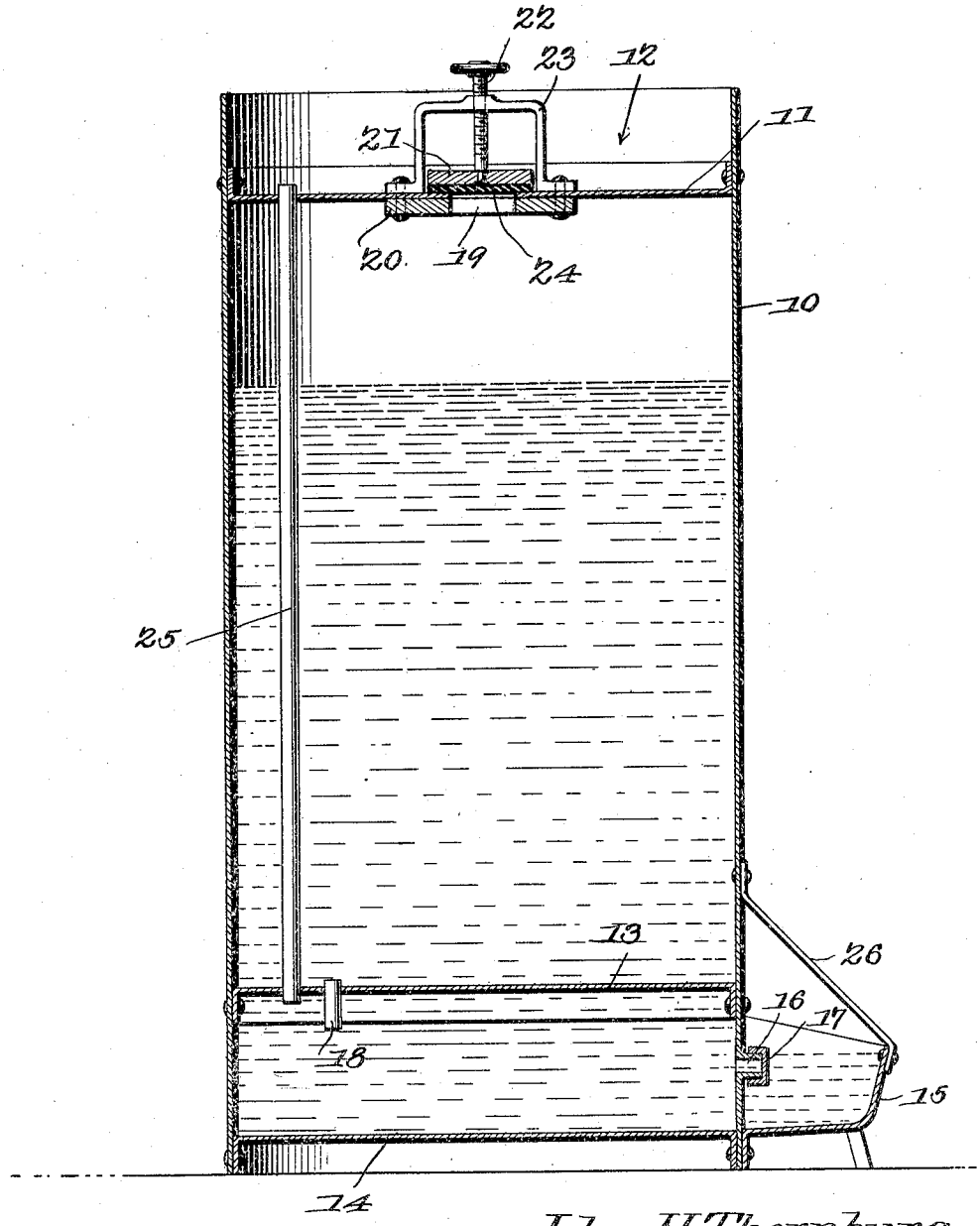
No. 794,326. PATENTED JULY 11, 1905.

J. H. THORNBURG.

STOCK WATERING FOUNTAIN.

APPLICATION FILED FEB. 1, 1905.



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No. 794,326. Patented July 11, 1905.

UNITED STATES PATENT OFFICE.

JOHN H. THORNBURG, OF KNIGHTSTOWN, INDIANA.

STOCK-WATERING FOUNTAIN.

SPECIFICATION forming part of Letters Patent No. 794,326, dated July 11, 1905.

Application filed February 1, 1905. Serial No. 243,712.

To all whom it may concern:

Be it known that I, JOHN H. THORNBURG, a citizen of the United States, residing at Knightstown, in the county of Henry and State of Indiana, have invented a new and useful Stock-Watering Fountain, of which the following is a specification.

This invention relates to stock-watering devices of the class wherein the water is caused to flow automatically into a trough or receptacle as fast as it is consumed and automatically cut off when a certain predetermined quantity has been discharged from the reservoir, and has for its object to provide a device of this class of improved construction and increased efficiency and wherein changes in temperature will not affect the action of the same.

With these and other objects in view, which will appear as the nature of the invention is better understood, the same consists in certain novel features of construction, as hereinafter fully described and claimed.

In the accompanying drawing, forming a part of this specification, and in which corresponding parts are denoted by like designating characters, is illustrated the preferred form of embodiment of the invention capable of carrying the same into practical operation, it being understood that the invention is not necessarily limited thereto, as various changes in the shape, proportions, and general assemblage of the parts may be resorted to without departing from the principle of the invention or sacrificing any of its advantages.

In the drawing thus employed the figure is a sectional elevation of the improved device.

The improved device comprises a tank or reservoir 10, of any approved size or form or of any suitable material, but will preferably be in cylindrical form and of sheet metal, such as galvanized iron or the like. The top 11 of the tank is disposed at some distance below the top rim to form a chamber 12 for facilitating the filling of the tank, and the tank will also be provided with a diaphragm 13, spaced from the bottom 14, whereby the interior of the tank is divided into two compartments of unequal size and with the watering-trough 15 connected to the lower of the interior compartments by a contracted discharge-aperture 16, provided with a detachable closing-cap, (indicated by dotted lines at 17.) The two interior compartments are also connected by a pipe 18, so that the water will freely flow between them, and the cover 11 is provided with a central aperture 19, surrounded by a strengthening-plate 20 upon the under side of the top 11 and with an arched frame 23 riveted to the top and through the strengthening-plate. A closure 21, having a rubber or similar packing 24, is held over the aperture 19 by a screw-rod 22 to produce an air-tight joint, while at the same time the closure may be readily detached when the tank is to be filled. The upper line of the discharge-aperture 16 is disposed just below the lowest point of the trough 15 to prevent overflow of the trough.

When the tank is to be filled, the cap 17 is placed upon the discharge 16 and the closure 21 removed and water poured into the chamber 12, which flows thence into the tank through the aperture 19, the elevated rim of the tank thus serving as a "funnel" to guide the water into the tank. When the tank is full, the closure 21 is replaced and the cap 17 removed from the discharge 16, when the water will flow into the trough 15 until it rises above the discharge-aperture 16, when it will cease to flow. When the stock drinks from the trough and lowers the water-supply therein and exposes the aperture 16, the water begins immediately to flow again from the tank and continues until the equilibrum is restored.

Under normal conditions devices thus constructed operate satisfactorily and with precision and require no attention so long as a "head" of water remains in the tank; but when exposed to relatively high temperatures, as when the sun shines hotly upon the tank, the expansion produced thereby causes the water to frequently overflow the trough and results in much annoyance and loss. To compensate for the abnormal expansion thus produced and automatically equalize the pressure and cause the device to operate equally well in all climates and under all thermal conditions, an equalizing-pipe 25 is connected between the outer air in the receiving-chamber

12 and the interior compartment beneath the diaphragm 13, so that as the air and water are expanded within the upper compartment the increased pressure causes the water to rise in the vent-tube 25, and thus relieves the abnormal pressure and prevents the overflow of the drinking-trough. As the tank cools the water assumes its normal level and the operation proceeds without change. By this simple device all danger of the overflow of the trough from increase of temperature is effectually and automatically obviated.

The device is simple in construction, can be manufactured in any required size or capacity or adapted for any kind of stock, and operates efficiently under all the varying conditions of weather encountered at different seasons and in different localities.

The drinking-trough 15 may be supported by a brace 26, if required.

Having thus described the invention, what is claimed is—

1. In a device of the class described, a closed reservoir having upper and lower compartments separated by a transverse partition having an aperture, a drinking-trough connected to said reservoir, a discharge from the lower of said compartments into said drinking-trough and disposed below the upper line of the same, and an equalizing-pipe leading from the lower of said compartments and terminating above the upper of said compartments.

2. In a device of the class described, a closed reservoir having its cover member spaced below the upper rim and provided with a central aperture communicating with the interior of the reservoir, an annular strengthening-plate connected to said cover member interiorly of the tank and surrounding said aperture, an arched frame connected to said cover member, a closure to said aperture, a screw-rod carried by said arched frame and bearing upon said closure, a transverse partition dividing the interior of said reservoir into two compartments and having an aperture connecting the compartments, a drinking-trough connected to said reservoir, a discharge from the lower of said compartments into said drinking-trough and disposed below the upper line of the same, and an equalizing-pipe extending through said partition and through said cover member.

3. In a device of the class described, a closed reservoir having the cover member spaced below the upper rim and provided with a central aperture communicating with the interior of the same, a detachable closure to said aperture, a transverse partition dividing the interior of said reservoir into two compartments and having a compartment-connecting aperture, a drinking-trough connected to said reservoir, a discharge from the lower of said compartments into said drinking-trough and disposed below the upper line of the same, and an equalizing-pipe extending through said partition and through said cover member.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JOHN H. THORNBURG.

Witnesses:
C. G. NEWBY,
HARRY E. KEYS.