No. 661,102. Patented Nov. 6, 1900.

J. W. GRONEWOLD.

DRINKING TROUGH FOR HOGS OR CATTLE.

(Application filed July 12, 1900.)

(No Model.)

Fig. 1.

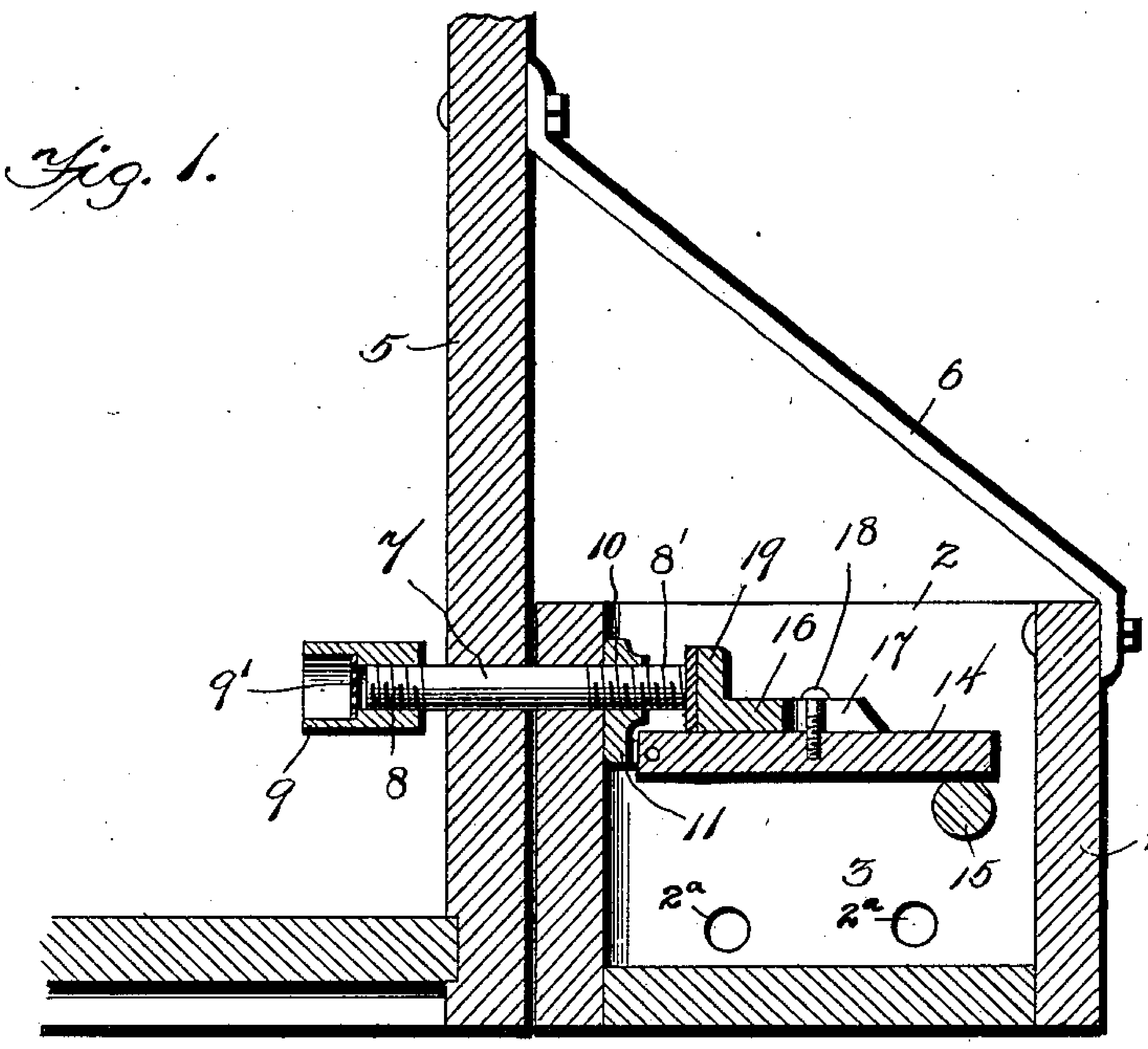


Fig. 2.

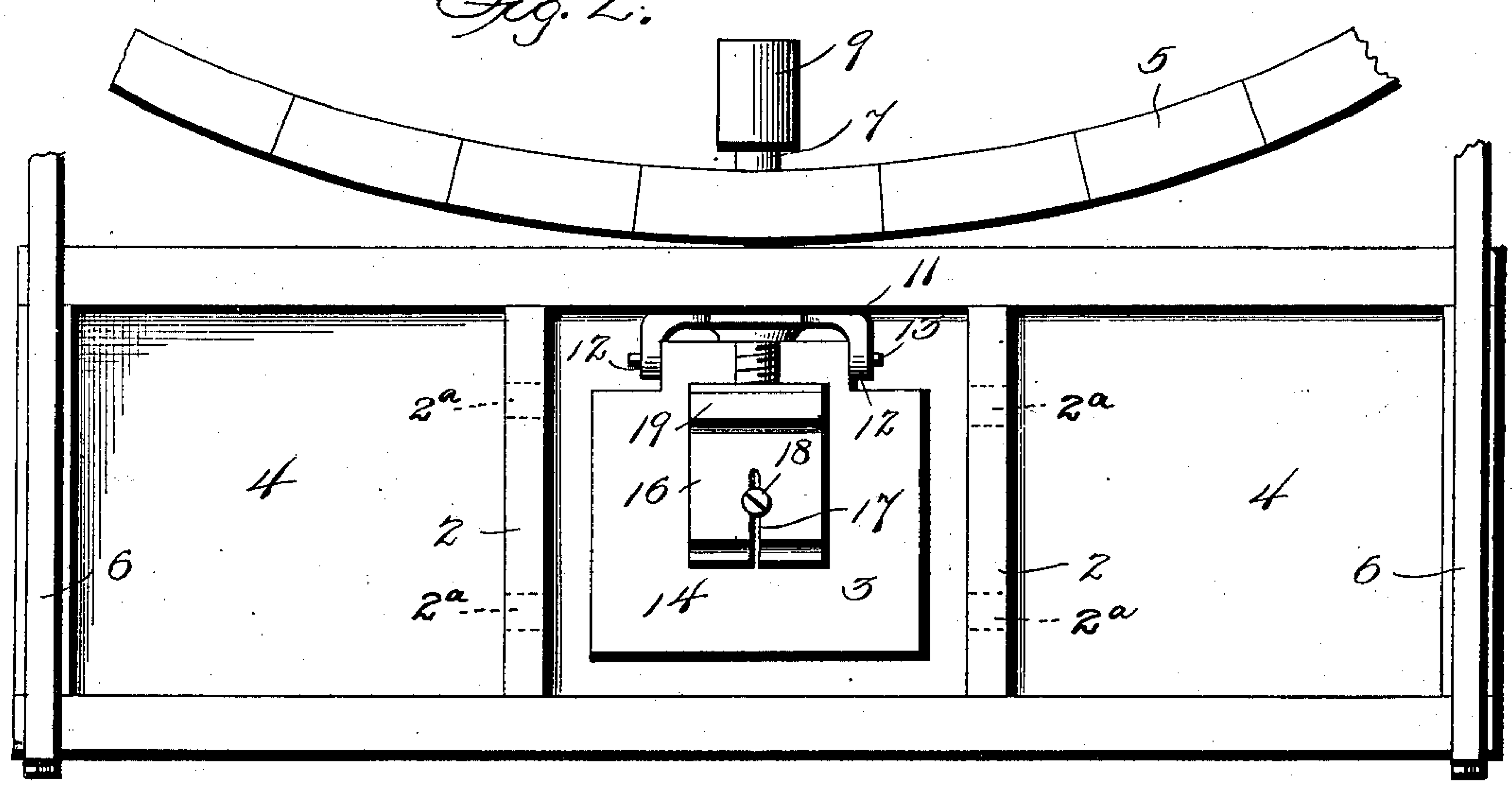
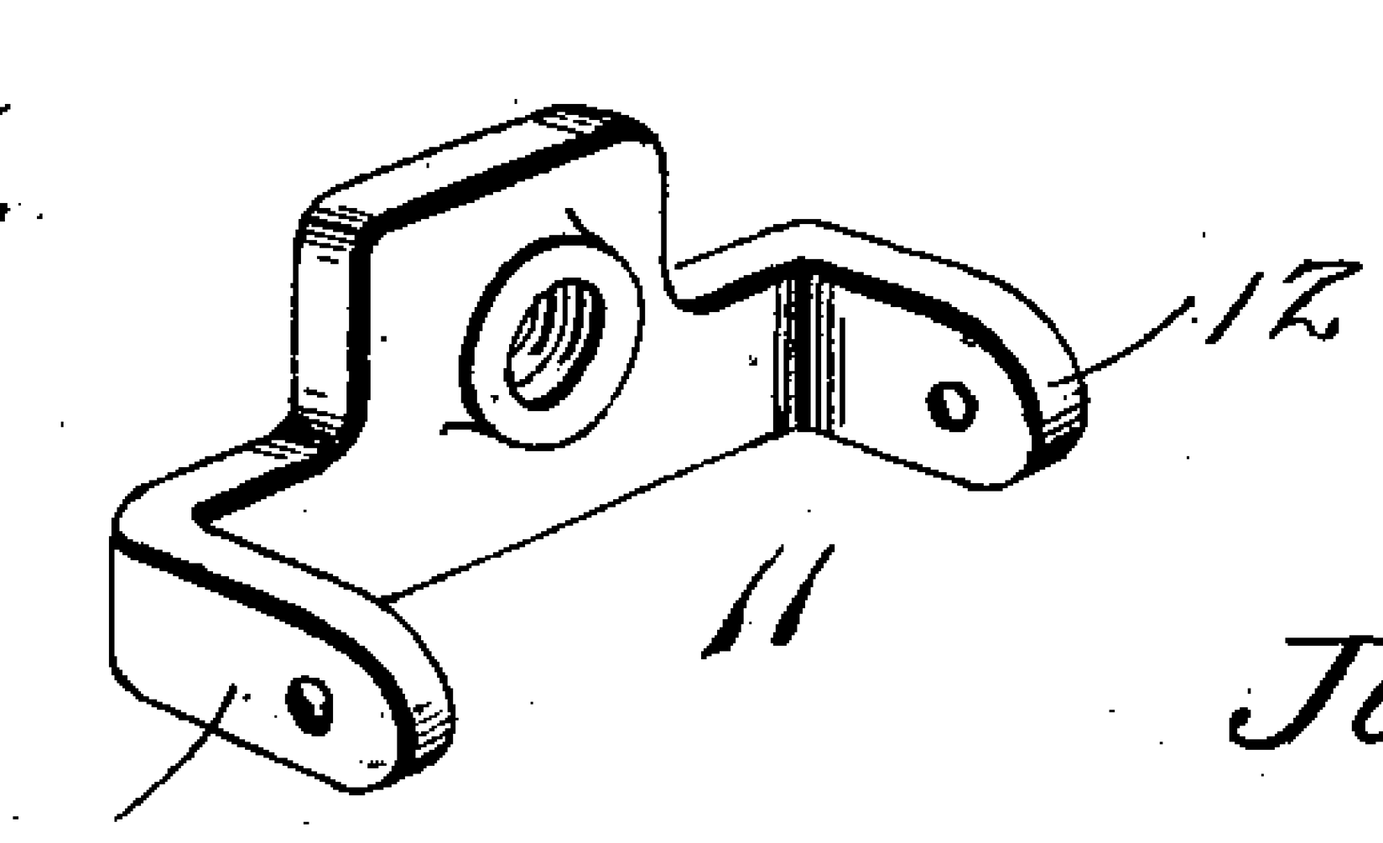


Fig. 3.



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JURGEN W. GRONEWOLD, OF GOLDEN, ILLINOIS.

DRINKING-TROUGH FOR HOGS OR CATTLE.

SPECIFICATION forming part of Letters Patent No. 661,102, dated November 6, 1900.

Application filed July 12, 1900. Serial No. 23,394. (No model.)

To all whom it may concern:

Be it known that I, JURGEN W. GRONEWOLD, a citizen of the United States, residing at Golden, in the county of Adams and State of Illinois, have invented certain new and useful Improvements in Drinking-Troughs for Hogs or Cattle; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in drinking-troughs for hogs and cattle; and its object is to provide a trough which may be conveniently applied to a barrel or water-supply tank and is provided with improved means for automatically regulating the supply of water thereto.

The invention consists of certain novel features of construction, combination, and arrangement of parts, as will be hereinafter more fully described, and particularly pointed out in the appended claim.

In the accompanying drawings, Figure 1 is a vertical transverse section through the central compartment of a drinking-trough embodying my invention, the trough being shown connected to a barrel or water-supply tank. Fig. 2 is a top plan view of the same. Fig. 3 is a detail perspective view of the bracket.

Referring now more particularly to the accompanying drawings, in which like reference characters designate corresponding parts throughout the several views, the numeral 1 represents the water-tank, which is divided by partitions 2 to form a central float-compartment 3 and drinking-compartments 4, said drinking-compartments being in communication with the float-compartment through openings 2^a in said partitions. The trough is secured to one side of a barrel or water-tank 5 and supported by angle-irons or braces 6, extending diagonally from the outer or front wall of the trough to the tank and bolted or otherwise secured thereto to hold the parts in fixed relation.

Water is supplied to the float-compartment 3 from the tank 5 through a water-supply pipe 7, extending horizontally through the connecting-walls thereof, said pipe being provided at its end 8 within the tank with screw-threads for adjustable engagement with an inlet tube or nozzle 9, applied thereto, which tube or nozzle is provided with a strainer 9′ to prevent the inlet of any foreign substances with the water into the pipe. The opposite end 8′ of the pipe 7 is also threaded and passes through a threaded opening 10, formed in the central body portion of a substantially U-shaped bracket 11, secured to the inner face of the rear wall of the tank, as shown. Mounted in the forwardly-projecting arms 12 of this bracket is a pintle or rod 13, upon which is hinged or pivoted a float 14, located within said compartment 3 and adapted to rise and fall with the water therein. To the under side of the float 14 is connected a body 15, of cork or some other suitable buoyant material, which adapts the said float 14 to rest upon the surface of the water and to rise and fall correspondingly therewith.

The flow of water through the pipe 7 into the compartment 3 of the trough is regulated by a valve or cut-off 16, slidably mounted in the float 14 and provided with a longitudinal slot 17, through which passes a screw-pin or a similar fastening device 18, adjustably connecting said valve or cut-off to the float. The valve or cut-off has a right angular lip or projecting portion 19, provided on its inner face with a packing 20, of leather, rubber, or other suitable material, adapted when the float rises to a horizontal position to bear against the end 8′ of the pipe and cut off the flow of water from the tank into the trough.

It will be understood that when the water in the trough falls below a predetermined height the float 14 will drop down and withdraw the lip 19 of the sliding valve or cut-off from contact with the end 8′ of the pipe 7, whereupon water from the barrel or tank 5 will flow through said tank and into the compartment 3, and thence into the drinking-compartments 4. When the water rises again to the predetermined height, however, the float is raised thereby to a horizontal position and the lip of the valve again brought into engagement with the end of the supply-pipe to seal the same and cut off the flow of water, whereby the supply of water from the barrel or tank to the trough is automatically regulated and the water in the trough maintained at a predetermined height. It will be seen that by adjustably connecting the

ends of the pipe with the inlet tube or nozzle and the bracket the parts may be readily and conveniently adjusted to adapt the float and connections to be applied to tanks and troughs of different thicknesses, while at the same time the pipe end 8′ may be adjusted as required to effect a more perfect union between it and the valve when the latter has been adjusted to the limit of its movement in either direction. The bracket, furthermore, acts as a stay to properly center the pipe and prevent it from being displaced and by any casual movements of the trough enlarging the openings in the tank and trough through which it passes. It will also be seen that the device is simple in construction, effective in action, and adapted to be applied with ease and facility to tanks and troughs of different sizes and thicknesses.

Another advantage is that as the valve is located wholly exteriorly of the barrel or supply-tank it is readily accessible, so that any foreign matter lodging so as to prevent a perfect closure between the lip 19 and end 8′ of the pipe 7 may be easily and conveniently removed.

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

In a drinking-trough for hogs and cattle, the combination, with a barrel or supply-tank, of a trough partitioned to form a central float-compartment and one or more drinking-compartments, said drinking-compartments being in communication with the float-compartment through openings in the partitions, braces connecting the tank and trough, a water-supply pipe extending through the adjacent walls of the trough and tank and having threaded ends, an adjustable inlet tube or nozzle threaded onto the end of the pipe within the barrel and provided with a strainer, a substantially U-shaped adjustable bracket upon the interior of the float-compartment and threaded upon the contiguous end of the pipe, a pintle mounted in the arms of said bracket, a float hinged or pivoted to said pintle and held by the arms of the bracket from lateral play, and an adjustable valve or cut-off carried by the float and adapted to control the flow of water through the discharge-pipe, substantially as set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JURGEN W. GRONEWOLD.

Witnesses:
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