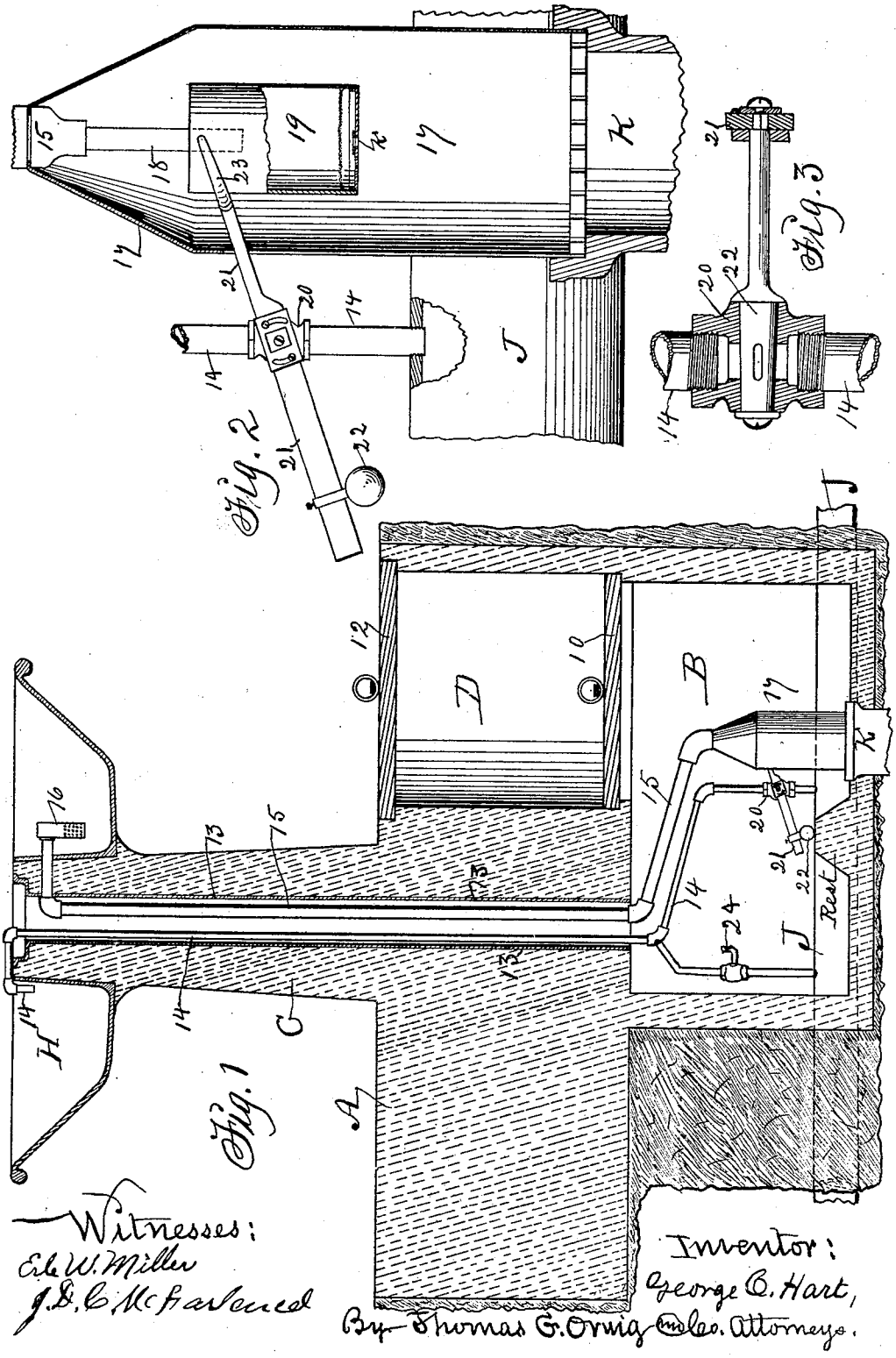
G. C. HART.

AUTOMATIC FOUNTAIN FOR HORSES, &c.

APPLICATION FILED AUG. 13, 1908.

912,241. Patented Feb. 9, 1909.



THE NORRIS PETERS CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

GEORGE C. HART, OF NEWTON, IOWA.

AUTOMATIC FOUNTAIN FOR HORSES, &c.

No. 912,241. Specification of Letters Patent. Patented Feb. 9, 1909.

Application filed August 13, 1908. Serial No. 448,750.

To all whom it may concern:

Be it known that I, GEORGE C. HART, a citizen of the United States, residing at Newton, in the county of Jasper and State of Iowa, have invented a new and useful Automatic Fountain for Horses, &c., of which the following is a specification.

The object of my invention is, first, to support a trough in an elevated position over an underground chamber so that horses hitched to a wagon having a pole can approach the trough and allow the pole to project under the trough as required to allow the horses to drink from the trough without bending their necks down and without unchecking their reins. Second, in connecting the trough with an underground water main by a tubular post as required to transmit water from the water main to a trough and to return waste water to a sewer or waste pipe underground. Third, to combine automatic valve mechanism with the trough, the tubular post and the water main as required to automatically regulate the flow of water from the water main into the trough.

My invention consists in the construction, arrangement and sub-combination of a concrete base, an underground chamber provided with a man hole, a tubular cement upright connected with the base, a trough on top of the upright, a metal pipe in the hollow upright, a main water pipe below the underground chamber, a sewer or waste pipe, automatic trap mechanism and inlet and outlet tubes connected with the trough as hereinafter set forth, pointed out in my claims and illustrated in the accompanying drawings in which:—

Figure 1 is a sectional view that shows the position of the invention relative to the ground and the arrangement and combination of all the operative parts. Fig. 2 is an enlarged view of the automatic valve operating mechanism connected with the outlet tube and the underground waste pipe. Fig. 3 shows the valve connected with the inlet pipe and the lever that operates the valve.

The letter A designates the concrete base located in the top of the ground and B the underground chamber.

C is the tubular concrete upright formed integral with the base A.

D is a manhole communicating with the chamber B and provided with removable covers 10 and 12 as required to protect the valve mechanism in the chamber from frost and to allow access to the chamber whenever desired.

A trough H made of cast iron preferably circular in form is fitted and fixed on the top of the tubular upright C as shown in Fig. 1, or in any suitable way as required to be securely retained in its elevated and exposed position.

J is an underground water main and K a sewer or waste pipe extending up from the chamber B.

A metal pipe 13 is fixed in the cement base A and upright C and extends from the chamber B to the top of the upright C.

An inlet tube 14 is connected with the water main J and extends up through and over the pipe 13 and upright C as required to convey water from the water main J into the trough H.

An outlet tube 15 is connected with the trough H and the waste pipe K as required to convey waste water from the trough H into the waste pipe K. A percolator 16 is attached to the upper end of the waste tube 15 to filter the flow of water from the trough into said tube. A cage 17 is fixed to the lower end of the outlet tube 15 that has an open-ended extension 18 to which is adjustably connected a balance cup 19 that has a small opening in its bottom for leakage. The cage is also connected with waste pipe K as shown in Fig. 2 or in any suitable way as required to allow water to pass therefrom into the waste pipe. The bottom of the cage is perforated.

A valve chamber 20 is fixed to the inlet pipe 14 and a lever 21 fixed to the stem of the valve in the chamber as shown in Fig. 3, or in any suitable way as required to actuate the valve. An adjustable counterbalance 22 is on the long arm of the lever. The short arm of said lever extends through a slot in the cage 17 and terminates in a fork 23 that is pivotally connected with the cup 19 as required to raise and lower the cup. A rest for the balance 22 on the lever 21 is formed on or fixed to the bottom of the chamber B as required to restrict the elevation of the cup 19 in the cage 17.

In the practical operation of my invention when the automatic mechanism is in its normal condition the valve will be open and water will flow from the water main up through the inlet pipe 14 and discharge into the trough and when the water rises in the trough over the percolator, water will de-

scend through said percolator and the outlet pipe 15 into the cup 19 and the cup will be forced down by the weight of water accumulated therein and in so doing will actuate the lever 21 as required to close the valve in the valve chamber 20 and thereby stop the flow of water from the water main up through the inlet tube 14 into the trough as required to prevent overflow from the trough. And when horses drink from the trough and the water lowers in the trough and ceases to flow through the percolator 16 and outlet tube 15 into the cup 19 the cup will empty and ascend as required to operate the lever 21 and thereby open the valve in the valve chamber 20 to again let water from the water main up through the inlet tube 14 and into the trough.

An auxiliary valve 24 is connected with the water main J and the inlet pipe 14 as shown in Fig. 1, or in any suitable way as required for regulating the flow of water from the water main into the trough. To prevent freezing it must flow stronger in the winter than in summer.

Having thus set forth the construction, arrangement and combination of all the parts of my invention and its purposes the practical operation and utility thereof will be obvious.

What I claim as new and desire to secure by Letters-Patent, is:

1. In an automatic fountain for watering horses, a concrete base having a tubular upright, a chamber below the base, a manhole communicating with the chamber, a water main and an escape pipe under the chamber, arranged and combined as set forth.

2. In an automatic fountain for watering horses, a concrete base having a tubular upright, a chamber below the base, a manhole communicating with the chamber, a water main and an escape pipe under the chamber, a trough on top of the tubular upright, an inlet tube connected with the water main for conveying water into the trough, an outlet tube extending from within the trough and means to convey waste water from the trough into the waste pipe.

3. In an automatic fountain for watering horses, a chamber under the ground, a water main, a waste pipe, a trough supported above the ground, an inlet tube connected with the water main to discharge water into the trough, a valve connected with the inlet tube and automatic mechanism for operating the valve for regulating the flow of water into the trough, and an auxiliary valve to regulate the flow in the inlet pipe.

4. In an automatic fountain for watering horses, an underground chamber, a waste pipe, a trough above the ground, an outlet tube extending from the trough into the underground chamber, a percolator on the upper end of said tube, a cage on the lower end of the tube connected with the waste pipe, an open-ended tube extended from the lower end of the outlet tube into the cage, a cup having an opening in its bottom and automatic mechanism to raise and lower the cup for the purposes stated.

5. An automatic fountain for watering horses comprising a concrete base having a tubular upright, a chamber under the base having a man hole and removable covers for the man hole, a water main, a waste pipe, a trough, an inlet tube, an outlet tube having a percolator at its upper end and a cage at its lower end, a cup having a leakage at its bottom, a valve connected with the inlet tube, a lever connected with the valve and with the cup and a counterpoise on the free end of the lever, to operate as set forth.

GEORGE C. HART.

Witnesses:
A. H. BERGMAN,
H. C. KORF.