(No Model.)

# G. W. SCHROEDER.

## AUTOMATIC WATERING DEVICE.

No. 478,472. Patented July 5, 1892.

Fig. 2.

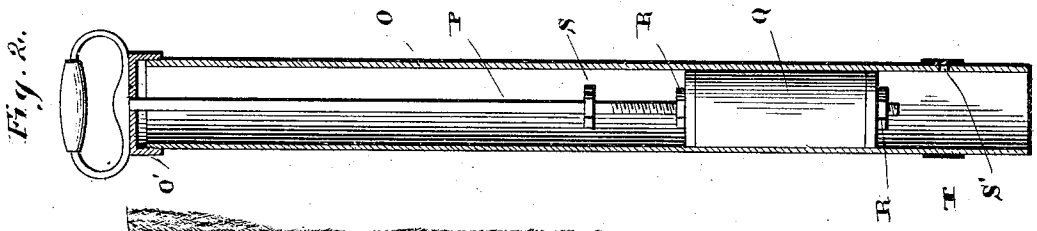


Fig. 1.

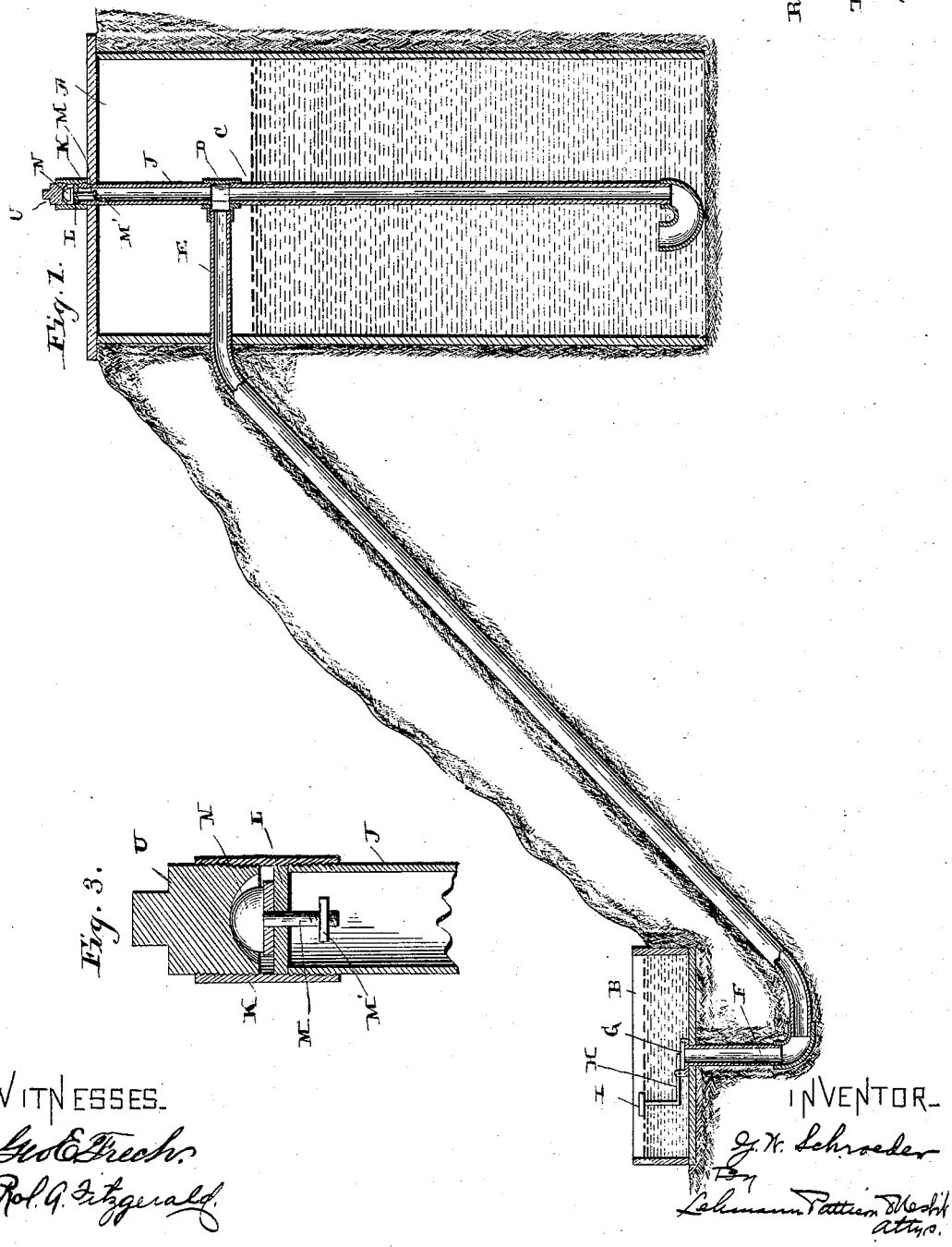


Fig. 3.




WITNESSES.

Geo. E. Frech.

Rob. G. Fitzgerald.

INVENTOR.

G. W. Schroeder

By Lehmann Pattison & Reshit Attys.

# UNITED STATES PATENT OFFICE.

GOTTLIEB W. SCHROEDER, OF HUNTINGTON, INDIANA.

## AUTOMATIC WATERING DEVICE.

SPECIFICATION forming part of Letters Patent No. 478,472, dated July 5, 1892.

Application filed March 10, 1892. Serial No. 424,413. (No model.)

*To all whom it may concern:*

Be it known that I, GOTTLIEB W. SCHROEDER, of Huntington, in the county of Huntington and State of Indiana, have invented certain new and useful Improvements in Automatic Watering Devices; and I do hereby 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in automatic watering devices; and it consists in certain novel features of construction and in the combination and arrangement of parts, which will be fully described hereinafter, and more particularly referred to in the claim.

The object of my invention is to construct an improved device whereby water is siphoned from a cistern or tank to a trough or other point where it is wanted for use.

Referring to the accompanying drawings, Figure 1 is a sectional view of my improved device, showing its position in connection with a bank of earth. Fig. 2 is a sectional view of my improved pump for starting the siphon. Fig. 3 is an enlarged detail view of the upper end of the pipe J.

A represents a tank or cistern, which, as here shown, is situated in a bank of earth, and B represents a trough, which is located at the foot of the bank or at a point below the main body of the tank A. Extending upward from the bottom of the tank A is the pipe C, and placed upon the upper end of this pipe is the T connection D, to which is connected the outwardly-extending pipe E. This last-named pipe slopes outward and downward to the point F, where it turns to a vertical position and enters the bottom of the trough B. Hinged to one side of this upturned end is the valve G, having the horizontal arm H, to the outer end of which is connected the float I. The pipe E is adapted to allow water to flow into the trough from the tank or cistern A until the former has become sufficiently supplied, when the float will pull upward upon the outer end of the arm H, and thus close the valve G.

Secured in the upper end of the coupling D is the pipe-section J, upon the upper end of which is placed the short pipe-section K. L represents a plug, which fits within this section K and which is adapted to rest against the upper end of the pipe J. This plug is provided with an opening in its center, and adapted to move vertically in this opening is the valve-stem M, having valve N on its upper end and a suitable stop M′ on its lower end to prevent it from moving entirely out of the opening in the plug.

Adapted to be connected to the upper end of the section K is the pump-cylinder O, in which moves vertically the piston-rod P, to the lower end of which is secured the vertically-adjustable head Q by means of the nuts R, which move on the lower screw-threaded end of the said rod. Placed at the upper end of this screw-threaded portion is the stop S, which prevents the said screw-threads from wearing against the sides of the opening in the cap O′, through which the piston-rod moves while the pump is in operation. Near the lower end of the cylinder O is the orifice S′, and adapted to fit around the cylinder at this point is the rubber band T, which covers the said opening.

When it is desired to withdraw the air from the pipes C and E in order to start the water to flowing, the piston is raised in the cylinder, thus drawing open the valve N and admitting the air to the cylinder. The automatic operation is thus started and will continue as long as air is excluded from the pipe C. The orifice S′ is for the purpose of discharging the air which has accumulated between the piston and the valve N, and this is accomplished by pushing the piston downward, forcing the band T away from the opening S′, thus allowing the air to escape. During the upward movement of the piston the band is held tightly against the said opening by the existing suction, and air is effectually excluded while the pipe C is being emptied.

The pump may be removed when desired, and for the purpose of holding the valve N tightly against the plug L a screw-plug or stopper U is provided, which bears downward on the valve and holds it securely over the opening in the plug L. The lower surface of the stopper U is preferably concave in form, and as the upper end of the valve N is rounded it will be seen that the said valve is brought

directly beneath the center of the said stopper, and is thus prevented from moving either to one side or the other. If so desired, the pipe-sections J and K may be dispensed with by placing the plug L, valve N, and stopper U in the upper end of the coupling D, and in this position the operation of the several parts is quite as effectual as the construction above described.

While my improved device is here shown as a means of supplying water to live stock, I do not wish to limit myself to this particular use, as it is evident that it may be applied to various uses where a similar object is desired.

Having thus described my invention, I claim—

The combination, with a tank or cistern, a discharge-pipe therefor, and a pipe-section connected to said discharge-pipe, of a perforated plug adapted to fit within said pipe-section, a valve for said perforated plug, having a rounded upper end, and a stopper which is adapted to close the top of said pipe-section and which is formed with a concave lower end which fits over said valve, for the purpose substantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

GOTTLIEB W. SCHROEDER.

Witnesses:
GEO. V. WIEST,
HENRY B. SAYLER.