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H. F. BARBER.

STOCK WATERING APPARATUS.

(Application filed Dec. 13, 1899.)

(No Model.)

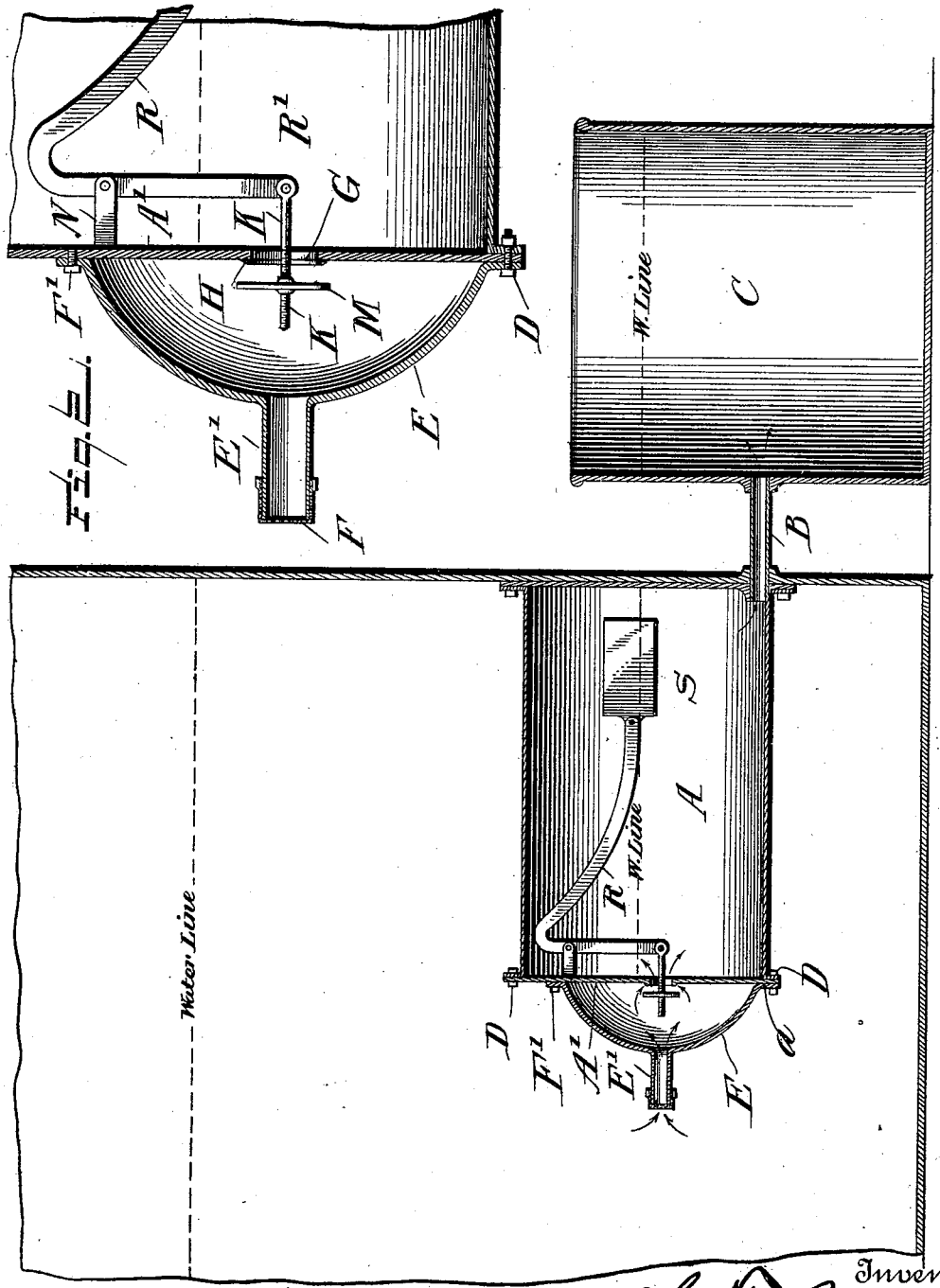

Fig. 2.

Fig. 1.

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UNITED STATES PATENT OFFICE.

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STOCK-WATERING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 646,407, dated April 3, 1900.

Application filed December 13, 1899. Serial No. 740,198. (No model.)

To all whom it may concern:

Be it known that I, HOLLAND F. BARBER, a citizen of the United States, residing at Kansas, in the county of Edgar and State of Illinois, have invented certain new and useful Improvements in Stock-Watering Apparatus; 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in stock-watering tanks; and the aim of the present invention is to produce a device of this character which contains a suitable float adapted to actuate an adjustable end valve, whereby a definite quantity of water is allowed to be automatically fed into a suitable trough, means being provided whereby access may be readily had to the apparatus for the adjustment of the valve to regulate the throw of the float.

More specifically the invention resides in the provision of a float-chamber having a valve-regulated aperture at one end which is covered by a shell having a perforated screen-covered extension, through which water is allowed to pass within the shell and thence through an aperture in the float-chamber, which latter carries a float on a pivoted arm connected to the valve-stem, a trough being provided which has communication with the float-chamber to receive the supply of water.

To these ends and to such others as the invention may pertain the same consists, further, in the novel construction, combination, and adaptation of parts, as will be hereinafter more fully described and then specifically defined in the appended claim.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form part of this application, and in which—

Figure 1 is a central vertical section through my improved float-chamber and watering-trough, and Fig. 2 is an enlarged detail view of the valve-regulating means.

Reference now being had to the details of the drawings by letter, A designates the float-chamber, which may be of any suitable shape or size, and leading from said float-chamber is a pipe B, passing through the end of the chamber and leading to a trough C on the outside. At the opposite end of the float-chamber from that through which the said pipe passes is a detachable end A′ to said chamber, said end being held to right-angled flanges *a* of said chamber by means of the fastening-bolts D. Secured to said detachable end is a hollow shell E, which has an extension E′, which is apertured, and over the end of said extension is mounted a suitable screen F, whereby obstructions and foreign matter are prevented from entering the shell. Said shell E is held to the end A′ of the chamber by means of screws F′. The removable end of the chamber is apertured at G, through which the water which has passed within the shell is allowed to enter the chamber. Mounted on the outer wall and about said aperture is a suitable packing H, and longitudinally movable in the aperture is a valve-stem K, which stem is threaded at K′ and carries a valve M. Integral with or secured to said removable end is a bracket N, to which is pivoted a valve float-arm R, which is bent at an angle at a position slightly above its beveled point, and the lower end of the vertical portion of said arm is pivoted to the stem K at R′, and the float S is mounted on the opposite end of said arm and normally rests in a position adjacent to the bottom of the float-chamber.

By means of the threaded stem K the valve M may be adjustably held at different locations on its threaded portions, thereby limiting the upward throw of the float. If it is desired to allow the float to rise to a high position in the float-chamber, the valve is unscrewed and positioned adjacent to the end of the threaded portion of the stem, and in case it is desired to have a more limited or shorter throw of the float the valve may be positioned adjacent to the inner end of the threaded portion, so that as the float is caused to be lifted by the inflowing water a short distance from the bottom of the chamber the valve will be seated against the packing H on the outer face of the detachable end of said chamber.

In practice the float-chamber, with its at-

tachments, is adapted to be placed within a water-tank and the water-trough placed outside of the tank and communicating with the float-chamber. As the valve is normally opened water will pass through the aperture in the detachable wall A′ of the float-chamber and thence will pass through the pipe B and into the trough outside. When the water in the outside trough rises, the water in the chamber and trough will seek a common level and the float will gradually rise with the water in the chamber until the trough is filled, after which the valve will be seated over the aperture G in the detachable wall of the chamber. By adjusting the valve the quantity of water which it is desired to feed to the trough may be regulated. In case it is desired to adjust the valve the shell may be easily removed from the end of the chamber by withdrawing the screws holding the same to the detachable end A′, and the valve may be moved nearer to or farther from the chamber, as may be desired, to feed a lesser or greater quantity of water.

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

A stock-watering apparatus, comprising a float-chamber, a detachable end to said chamber secured to flanges of the chamber, a threaded valve-stem passing through an aperture in said detachable end, a threaded valve adjustably held on the threads of the valve-stem, a packing against which said valve is adapted to be seated, a float and an arm secured thereto, said arm being angled and pivoted near its angle, a bracket secured to the removable end to which bracket said arm is pivoted, the lower end of the vertical portion of the arm being pivoted to the inner end of the valve-stem, and a watering-trough and pipe communicating between the same and said float-chamber, as shown and described.

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

HOLLAND F. BARBER.

Witnesses:
J. C. EPPERSEN,
J. E. HITE.