J. COMPTON.

Hydrant for Watering Stock.

No. 207,015. Patented Aug. 13, 1878.

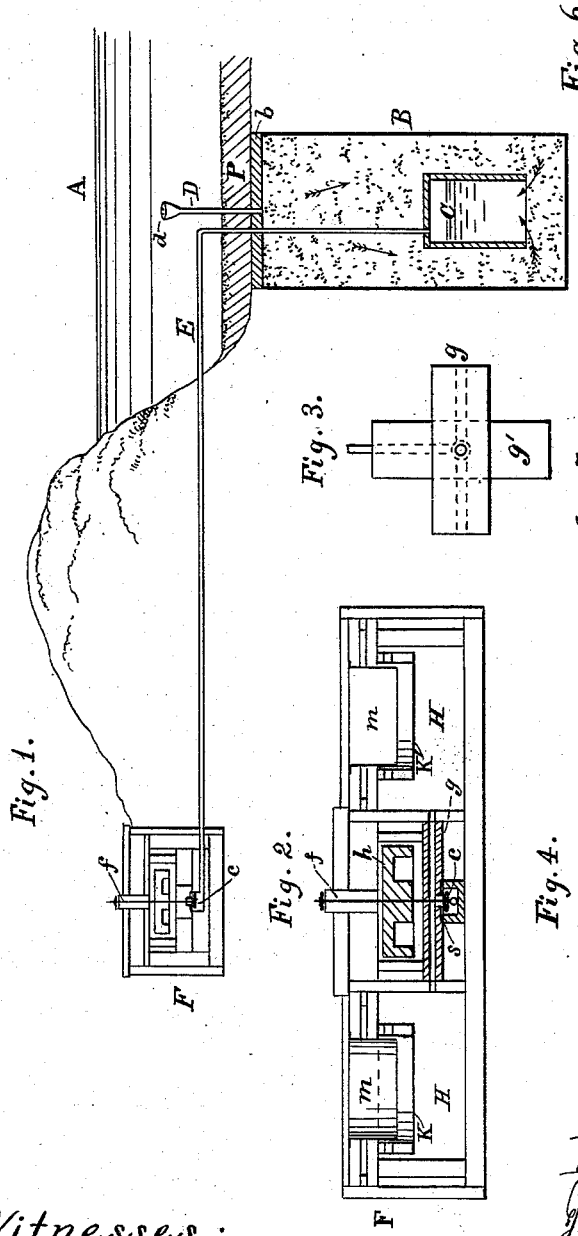

Fig. 1.

Fig. 2.

Fig. 3.

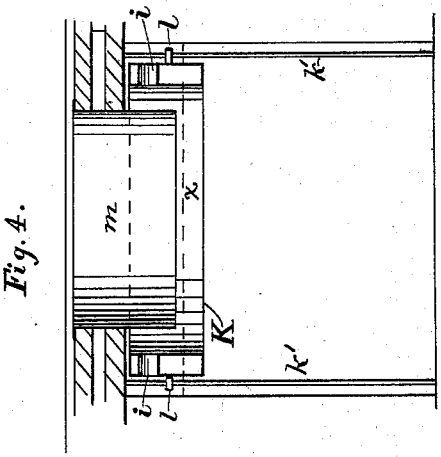

Fig. 4.

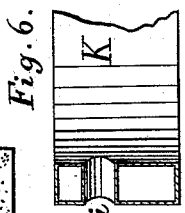

Fig. 6.

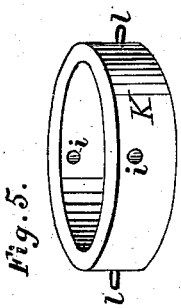

Fig. 5.

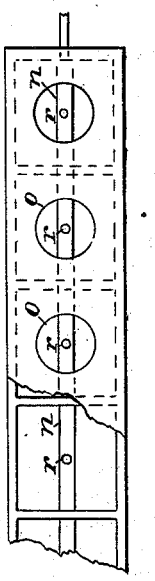

Fig. 7.

Witnesses:

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UNITED STATES PATENT OFFICE.

JAMES COMPTON, OF LA BELLE, MISSOURI.

IMPROVEMENT IN HYDRANTS FOR WATERING STOCK.

Specification forming part of Letters Patent No. **207,015**, dated August 13, 1878; application filed November 17, 1877.

To all whom it may concern:

Be it known that I, JAMES COMPTON, of La Belle, in the county of Lewis and State of Missouri, have invented certain new and useful Improvements in Hydrants or Devices for Supplying Stock-Cattle with Water; and I do hereby declare that the following is a full description thereof, which will enable others skilled in the art to which it pertains 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 hydrants and devices for supplying water for drinking, and is more especially adapted for use upon farms for watering stock-cattle, my improvements herein described being upon a certain invention for which Letters Patent No. 183,751 were formerly granted and duly issued to me on the 31st day of October, 1876.

In the accompanying drawings, Figure 1 represents, in section, a filtering-well with my improvements applied thereto. Fig. 2 is a vertical section of the hydrant and trough. Fig. 3 represents, in plan, that part of the trough holding the valve and its seat. Fig. 4 shows, in section, one of the drinking-chambers. Fig. 5 represents one of the floating air-chambers detached. Fig. 6 illustrates, in section, one of the floating air-chambers. Fig. 7 represents, in plan, an extended trough for use in connection with hydrant.

In the said drawing, A designates a pond or other body of water, from which water passes to a filtering-well, B, the latter having the box C placed therein, as shown in Fig. 1. The box C has no bottom, and the well B is filled up with gravel or sand, and provided with a substantial cover of plank, *b*.

A tube, D, having a strainer, *d*, at the top, is placed as shown, to communicate between the pond A and the well B. Another tube, E, which is the distributing-pipe, conducts the water from the box C to the trough F.

A layer of clay, P, preferably from eight to twelve inches in depth, is placed on the plank covering *b*, and well pressed to prevent water settling through the cover of the well B. The pipe D is usually screwed into and through the plank *b*, the strainer *d* being raised a suitable distance above the bottom of the pond or other reservoir.

The water, rising from the box C, passes through the pipe E to the trough F, the latter being placed lower than the surface of the pond A.

The trough F is divided into sections or compartments, as seen in Fig. 2, communicating with each other, and one of these divisions is occupied by the valve *c*, which is used to regulate the admission of water to the trough. This valve is seated near the bottom in manner following: Two pieces of timber, *g* and *g'*, are placed at the bottom of the trough, one crossing the other, as seen in Fig. 3. The lower piece, *g'*, is bored one-half its length, forming a passage to the center, where the valve *c* is located in a chamber formed for it in said piece *g'*, and the timber *g* has a water-passage through it lengthwise along the center, and communicating with the valve-chamber, as shown in the drawing. The valve *c* closes against the upper timber, *g*, a suitable packing, *s*, being provided as a seat for it about the aperture, and it is operated and regulated by means of rod *f*, having a screw-thread, and provided with a weight, *h*, the latter being preferably of wood. Thus the water is conducted along the pipe E into the passage in the timber *g'*, is admitted by opening the valve to the passage in the timber *g*, and passes to the compartments of the trough, as shown. These compartments H are each provided with a suitable covering, with a circular aperture, at which the animals may drink.

In Fig. 2 the trough is shown in section, with two water boxes or divisions, and one for the valve *c* and its connections.

K is a floating air-tight chamber, which is placed below the mouth or circular aperture in the cover of each water-box. This chamber K is annular in form, as shown in Fig. 5, and consists of an outer and an inner cylinder, preferably of sheet metal, the two being connected at the top and bottom, so as to form an air-tight chamber between them. Apertures *i* are made through this annular vessel, tubes being inserted to close the air-chamber between the outer and inner cylinders, the vessel being intended to rest on the surface of the water.

The chamber K may be kept in position by vertical rods K′, fixed in the water-box, and passing through eyes *l* fastened to the floating chamber, which is thus allowed to move up and down freely.

The circular aperture in the cover of the water-box is provided with an apron, *m*, preferably of galvanized sheet metal, which extends entirely around at the edge of the aperture, being fastened thereto. This apron extends downward to within a short distance of the water, (see Fig. 4, in which *x* indicates the water-line,) the lower part of the apron being surrounded by the annular chamber K, the latter being made a little larger than the cylindrical apron *m* for such purpose.

It will be observed that that part of the surface of the water in the water-box which is exposed to the weather is within the floating annular chamber K, and should an animal come to drink when the water is coated with ice he naturally presses the ice with his nose. The chamber K readily yields to such pressure, sinking and allowing the water to pass within it through the apertures *i*, and the animal is enabled to drink.

In connection with the hydrant a long trough may be used, having a number of water-compartments, as shown in Fig. 6, each compartment having a drinking-aperture, *o*, in the cover.

Along on the bottom of the trough is placed a tube or pipe, *n*, connecting with the hydrant-box or supply-pipe, the pipe *n* having an aperture, *r*, in each compartment, so that when water is drawn from one compartment it immediately comes by pressure to a uniform level in all the divisions of the trough.

I claim as my invention—

1. The valve C, cross-pieces and water-passages *g* and *g′*, packing *s*, rod *f*, and weight *h*, substantially as shown, and for the purpose described.

2. The air-tight annular chamber K, with apertures *i* and eyes *l*, vertical rods K′, and apron *m*, substantially as shown and described.

3. The filtering-well B, with pipe D and strainer *d*, pipe E, air-tight annular chamber K, with apertures *i*, apron *m*, and trough F, substantially as shown and specified.

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

JAMES COMPTON.

Witnesses:
R. RHOADES,
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