

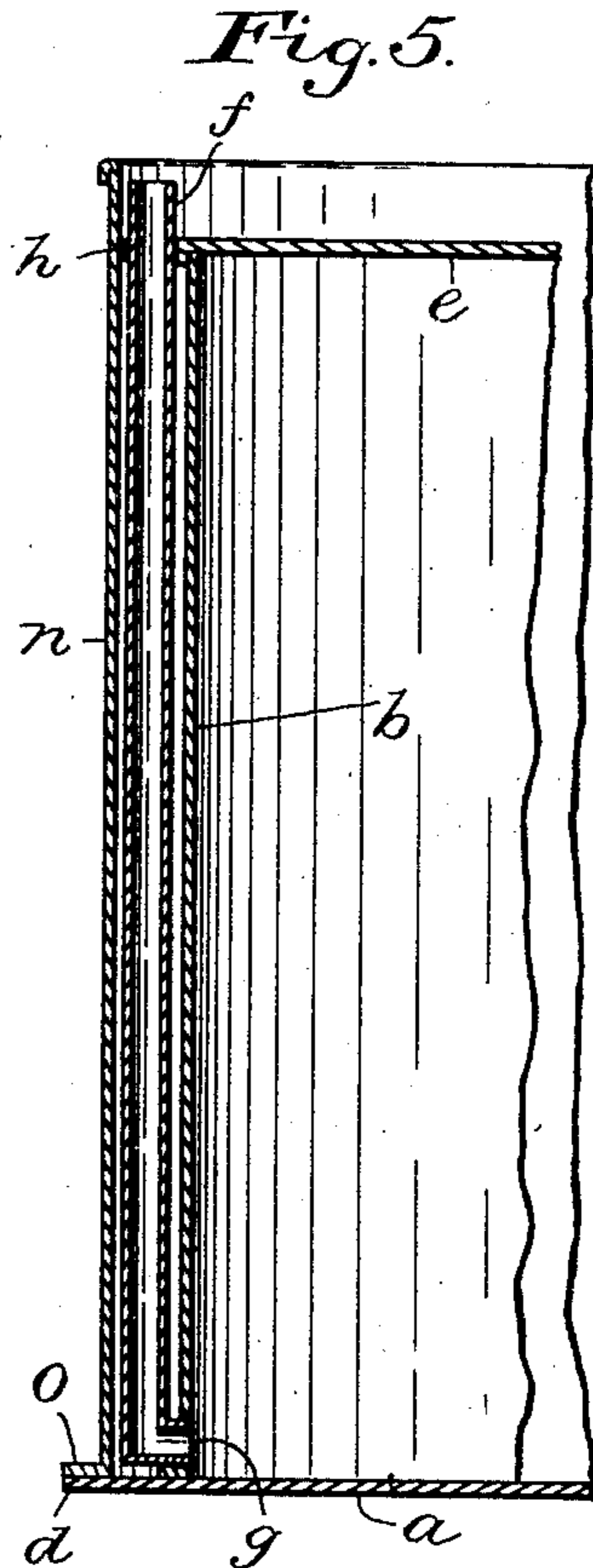
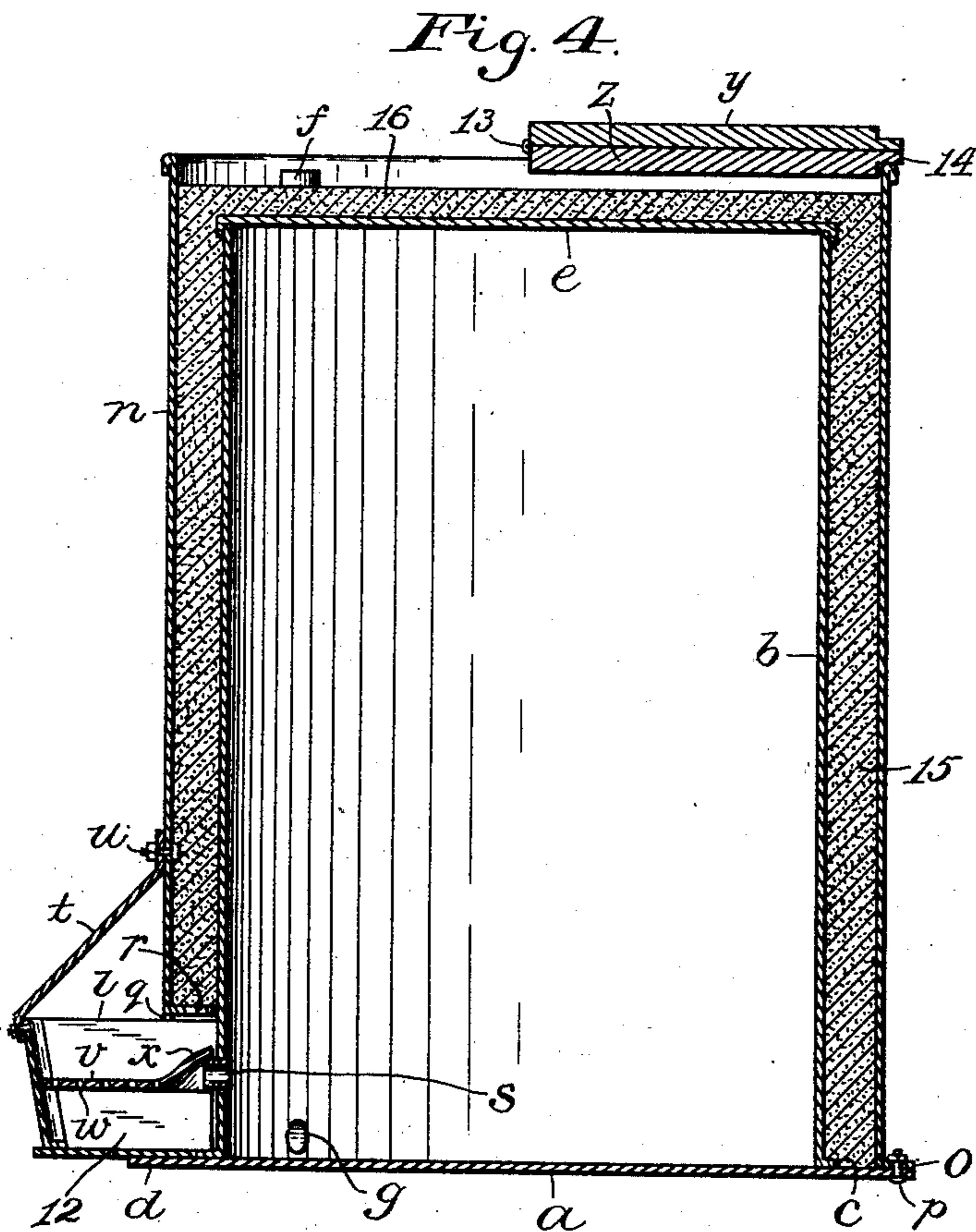
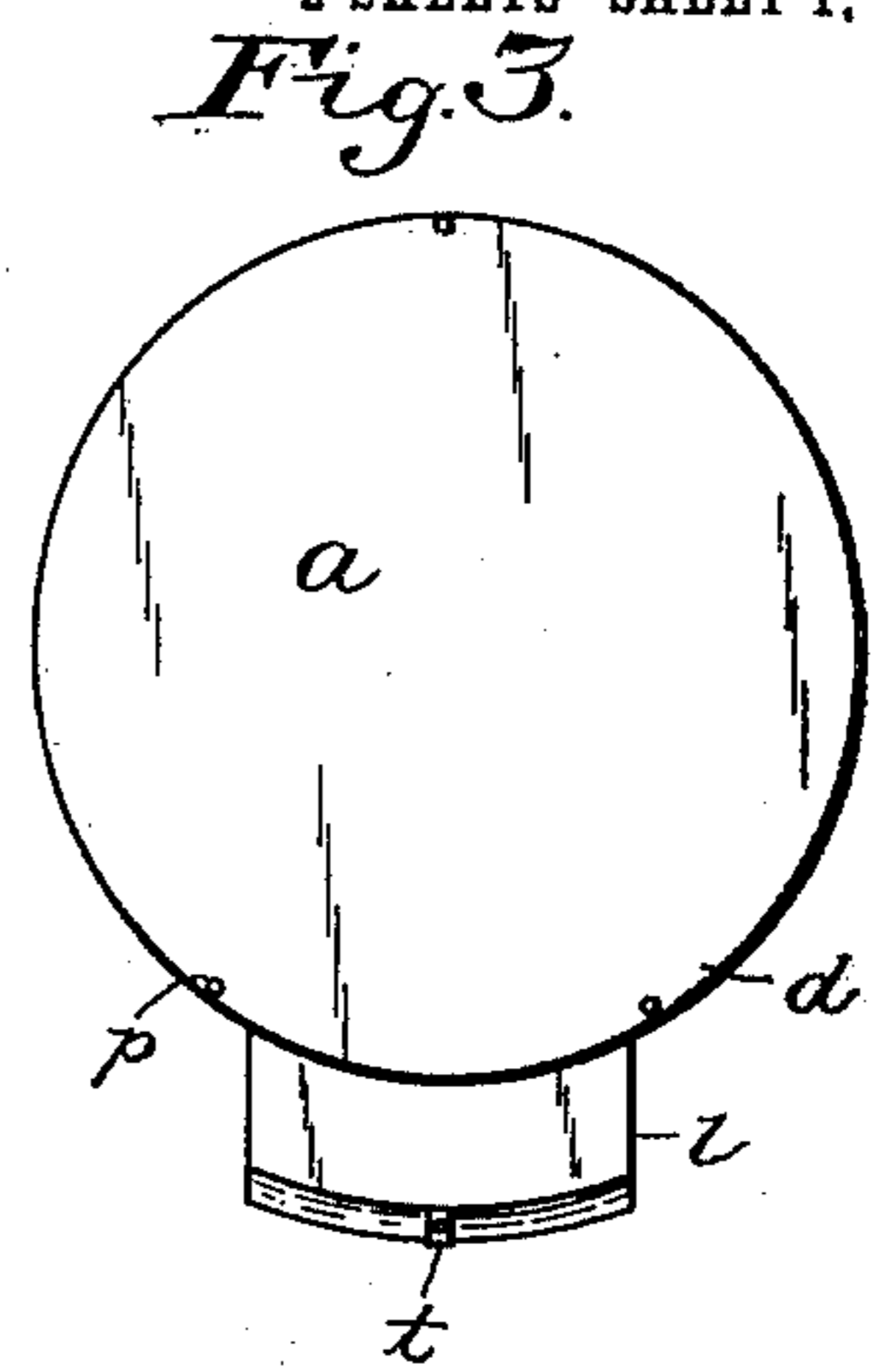
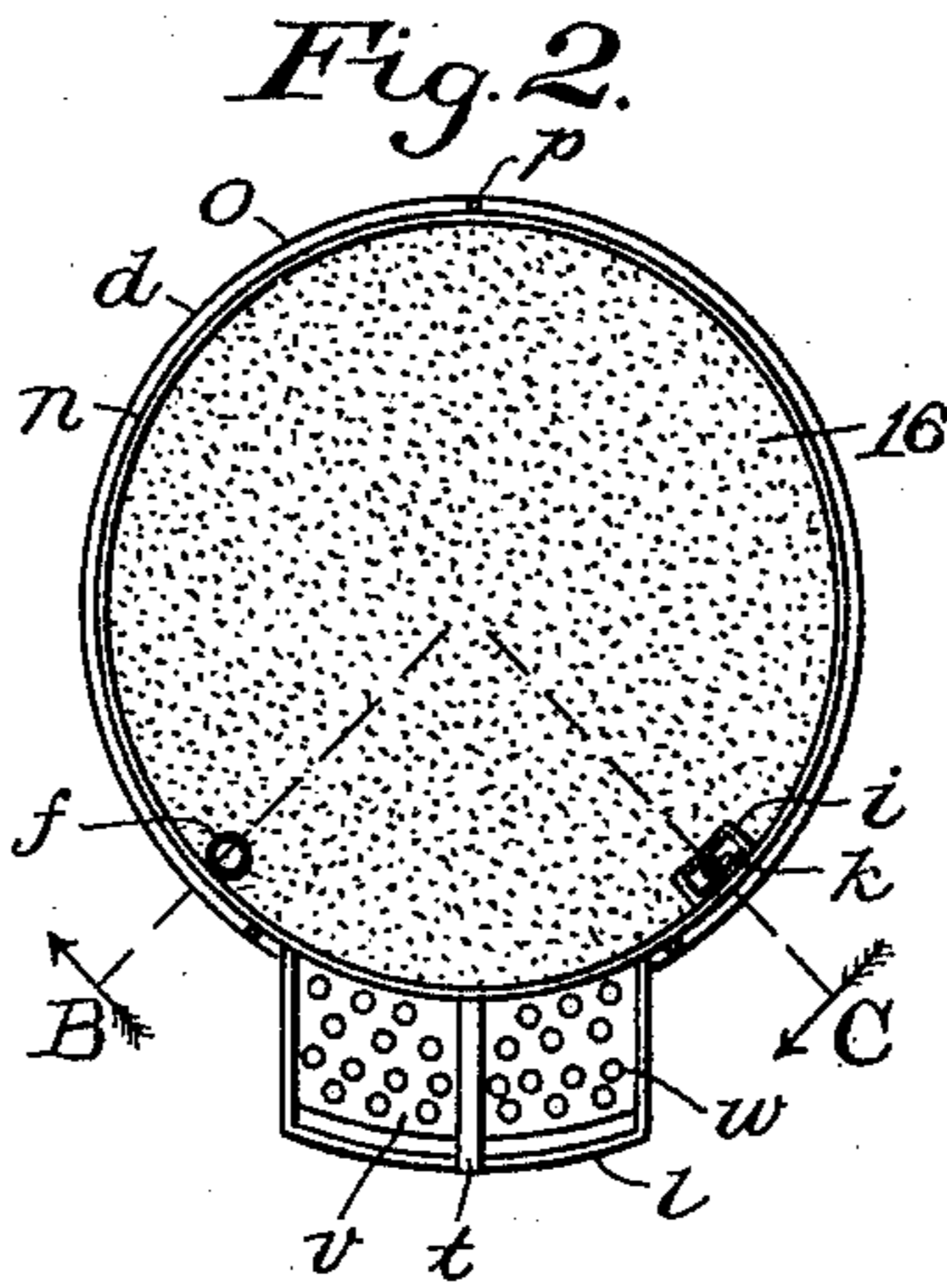
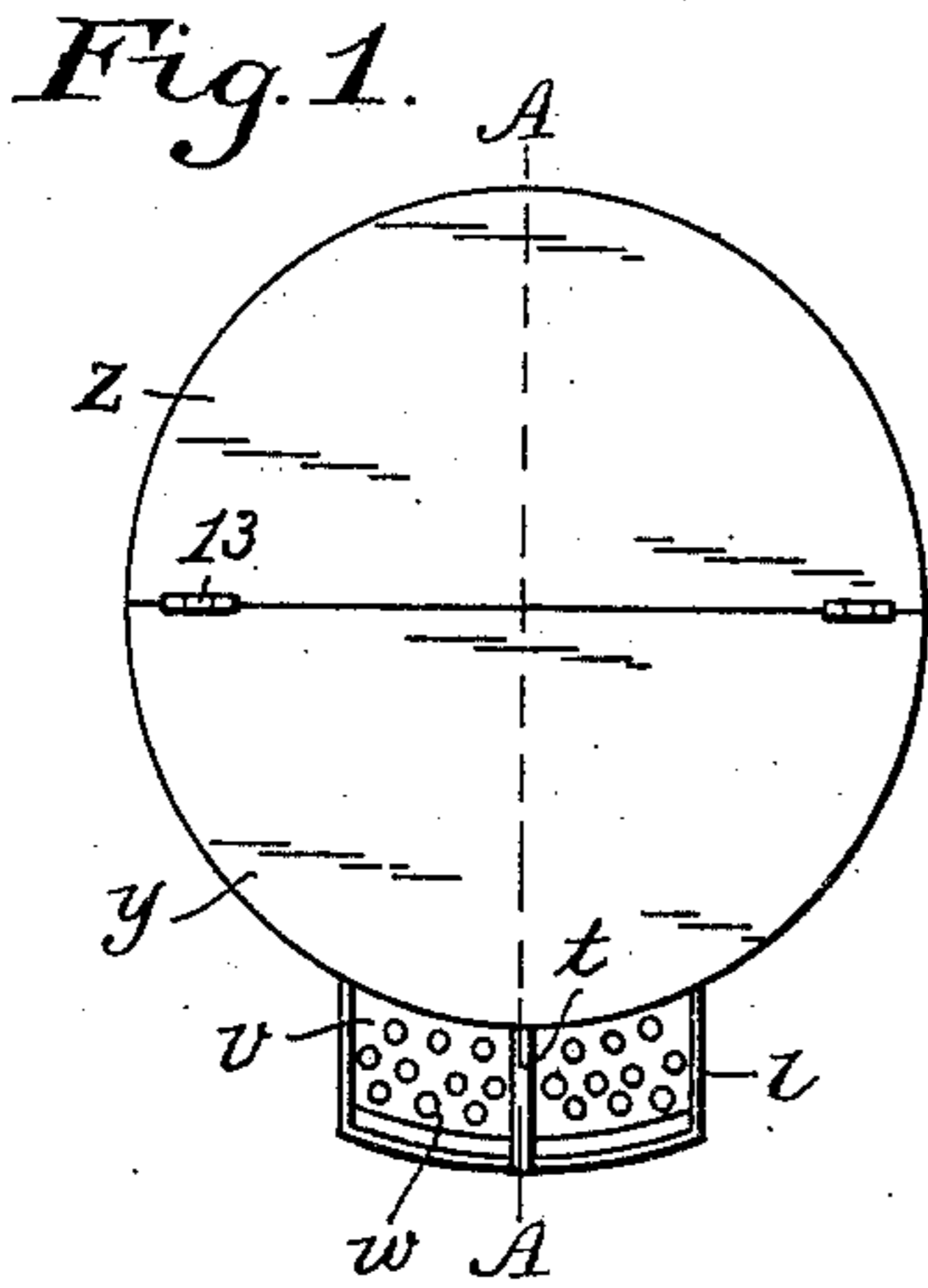
No. 839,964.

PATENTED JAN. 1, 1907.

H. M. SMITH.  
DRINKING FOUNT FOR LIVE STOCK.

APPLICATION FILED JUNE 20, 1906.

2 SHEETS—SHEET 1.



WITNESSES:

Dow W. Vorkies.  
Stella Snider.

INVENTOR:

Harvey M. Smith,  
BY  
E. T. Silvius,  
ATTORNEY.

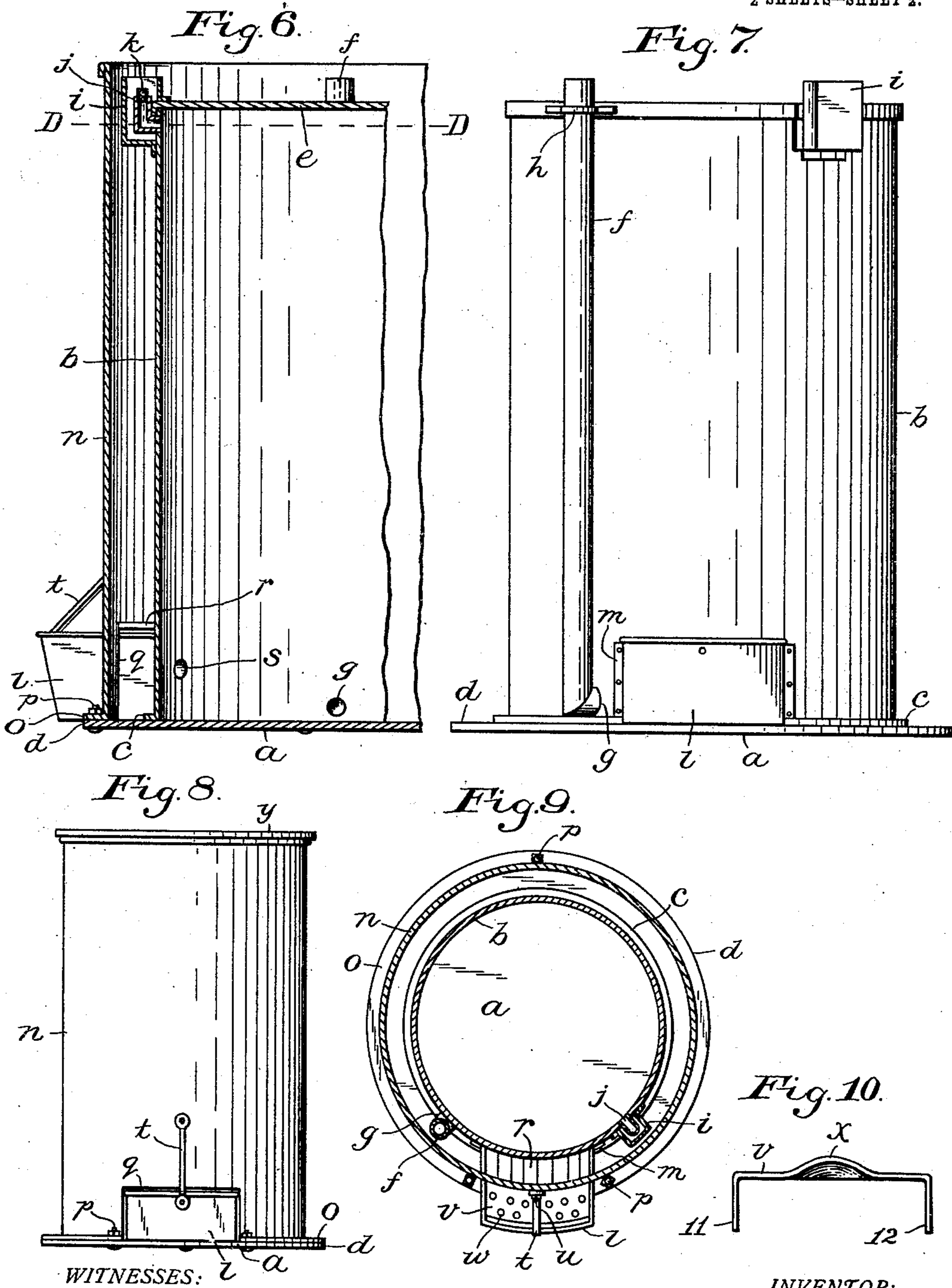
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# UNITED STATES PATENT OFFICE.

HARVEY M. SMITH, OF MONROE TOWNSHIP, MORGAN COUNTY, INDIANA.

## DRINKING-FOUNT FOR LIVE STOCK.

No. 839,964.

Specification of Letters Patent.

Patented Jan. 1, 1907.

Application filed June 20, 1906. Serial No. 322,525.

*To all whom it may concern:*

Be it known that I, HARVEY M. SMITH, a citizen of the United States, residing in Monroe township, in the county of Morgan and State of Indiana, have invented new and useful Improvements in Drinking-Founts for Live Stock; and I do declare the following to be a full, clear, and exact description of the invention, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

The invention relates to reservoirs or vessels for holding water and provided with troughs that may be automatically supplied from the reservoirs and from which animals and fowls may drink; and the invention has particular reference to the different parts comprised in the reservoirs and in casings therefor and in the troughs.

Objects of the invention are to provide drinking-founts for live stock of simple and light-weight construction adapted to be shipped at the minimum cost from the place of manufacture; to provide drinking-founts which may be readily repaired when necessary at small cost and which may be thoroughly cleansed internally; to provide reservoirs or water-supply vessels of automatic founts with improved casings and coverings in order to prevent loss of water by reason of the water and air becoming warm and expanding in the reservoir, which casings and coverings may be readily removed in order to gain access to the reservoirs for repair-work; to provide automatic founts with improved vents, and to provide improved screens for the drinking-troughs of automatic founts.

With the above-mentioned and minor objects in view the invention consists in a drinking-fount for live stock comprising a reservoir provided with an external filling-tube readily accessible for repairs, and a water-sealed vent-stopper, a removable casing and covering for the reservoir, and an improved screen for the trough and outlet-orifice of the fount, the invention consisting, further, in the novel parts and the combinations and arrangements of parts, as hereinafter particularly described and claimed.

Referring to the drawings, Figure 1 is a top plan of the improved drinking-fount complete; Fig. 2, a top plan thereof without its lid; Fig. 3, a plan view of the fount inverted; Fig. 4, a vertical sectional view on the line A A in Fig. 1 with part of the lid turned

back; Fig. 5, a fragmentary vertical sectional view on the line B in Fig. 2, showing the filling-tube in section; Fig. 6, a fragmentary vertical sectional view on the line C in Fig. 2, showing the vent-tube in section; Fig. 7, a front elevation of the reservoir and trough without the casing and covering; Fig. 8, a front elevation of the complete fount; Fig. 9, a horizontal sectional view on a plane corresponding to the line D D in Fig. 6, and Fig. 10 a rear elevation of the trough screen or filter.

In practically carrying out the invention galvanized iron is employed from which to construct the principal parts in order to attain the best results in making tight joints and also in repairing and in ultimate economy in use.

A circular bottom *a* is provided, on which a circular reservoir shell or body *b*, having an external flange *c*, is secured, the flange being soldered tightly to the bottom, and the shell may be otherwise secured to the bottom, which is greater in diameter than the shell, so that an external flange *d* is provided on which to place the casing and the covering of the reservoir, the latter having an imperforate top *e* secured tightly to the shell, completing, with the bottom, a water-holding-supply vessel. A filling-tube *f* has a tight connection *g* with the shell *b* as close as may be to the bottom *a*, and it extends along the exterior of the shell vertically beyond the top thereof, the tube being stayed laterally near its upper end by a strap *h*, that is attached to the upper part of the reservoir, the strap permitting either the tube or the reservoir to expand or contract more or less without causing fracture at the joint of the connection *g*.

A water-box *i* is attached to the exterior of the upper part of the reservoir, extending upward beyond the top *e* thereof, and an Z-shape vent-tube *j* is attached to the shell *b* close to the top and communicates with the interior of the reservoir, extending in the water-box toward but not to the top thereof and preferably higher than the top *e*, and the vent-tube is provided with a suitable stopper *k*. The water-box will hold sufficient water to cover the vent-tube and its stopper, so that when the stopper wears out in use any convenient cork or wooden stopper may be substituted therefor and be kept wet and therefore air-tight in the mouth of the vent-tube.

A drinking-trough *l* has flanges *m* by which

it is secured to the exterior of the shell *b* upon the bottom *a*, extending beyond the flange *d* thereof, the trough being joined tightly and soldered to the shell, so that it may hold

5 water.  
In order to prevent sudden rise in temperature within the reservoir and also to keep the water therein palatably cool in summer seasons, the reservoir is provided with a circular external casing *n*, having an external bottom flange *o*, whereby the casing is detachably secured by bolts *p* to the flange *d* of the reservoir-bottom, the casing being somewhat greater in diameter than the reservoir, and is separately open at both of its ends, its lower end part having a side opening *q*, through which the trough *l* extends, and at the top of the opening a slitted flange *r* extends from the casing to the shell of the reservoir over the inner portion of the trough, the flange being preferably formed of parts of the metal of the casing turned over while forming the opening *q*.

For supplying the trough with water the shell *b* of the reservoir has a bushed outlet-opening *s* somewhat above the bottom *a* and below the top of the trough, the opening being adapted to receive a wooden stopper, which should be inserted therein while filling

30 the reservoir.  
The trough *l* is provided with a brace *t*, which is attached to the front thereof and extends to and is detachably secured to the front of the casing *n* by a bolt *u*. In the trough is a removable false bottom *v*, having apertures *w* and supporting-legs 11 and 12, the legs holding the false bottom somewhat above the real bottom of the trough with the main part of the false bottom in a plane below the upper part of the opening *s*, the false bottom having an arched part *x* on its inner end extending up over the opening *s* to screen the opening and prevent foreign matter or scum from being drawn into the opening by the inflowing air when the water is being drunk from the trough. The false bottom may be composed of wire-netting, if desired.

The reservoir is provided with a circular lid which rests removably on the top of the casing *n*, and it comprises two parts *y* and *z*, connected together by hinges 13 and having flanges 14 extending slightly over the casing, either part of the lid being adapted to be opened upwardly and to fall over upon the other part.

Suitable filling material is placed about the reservoir-shell between it and the casing *n*, so as to form a covering 15 to exclude the atmosphere-air from the reservoir, and similar material forms a top covering 16 for the reservoir on the top *e* for the same purpose, and various kinds of material may be suitably used. In the interest of economy the otherwise complete fount without the cover-

ings may be shipped, and then the user may add dry pulverized earth to form the coverings. An air-space preferably is left between the covering 16 and the lid, and the covering 16 does not extend as high as the tube *f* and water-box *i*.

In practical use an ordinary plug-stopper may be placed in the opening *s*, (after having lifted the false bottom *v*.) Then the stopper *k* should be removed from the vent-tube, after which water may be poured into the filling-tube *f* or allowed to flow into it from a hose until the reservoir becomes full and the water flows into and fills the water-box *i*. Then the stopper *k* should be replaced in the vent-tube under water surrounding the tube, after which the stopper may be removed from the opening *s* to permit water to flow into the trough *l*. When water rises in the trough, the level of the water left in the tube *f* will fall until it reaches the level of the opening *s*, or approximately so, the capacity of the tube being approximately that of the trough, so that the water in the trough will close the opening *s* and prevent further flow from the reservoir, this result being due to natural causes well understood, there being partial vacuum in the top of the reservoir. If an animal now drinks from the trough, the level of the water therein will fall until air may pass into the opening *s* and thence through the water that may be in the reservoir to the top thereof, thus permitting more water to flow into the trough automatically, according to requirements.

When it is desired to cleanse the reservoir of sediment, the whole fount may be turned over on its side with the filling-tube undermost, so that the water may flow from the bottom of the reservoir out of the filling-tube and carry away the sediment, and therefore drain-cocks, which may become leaky are not required. In case a leak develops in use, which would prevent the operation of the fount, the casing and covering may be readily removed from the reservoir and the filling-tube, so that the leak may be easily found and repaired by soldering, which will be found of great economic advantage.

Having thus described the invention, what is claimed as new is—

1. A drinking-fount including a reservoir, a casing extending about the reservoir, and a filling-tube attached to the reservoir and extending within the casing to be protected thereby.

2. A drinking-fount including a reservoir with an outlet-opening therein, a drinking-trough at the opening, a filling-tube attached to the reservoir, and a covering for the reservoir and the filling-tube extending over a portion of the trough.

3. A drinking-fount including a reservoir with an outlet-opening therein, a drinking-trough at the opening, an apertured false bot-

tom in the trough and having an arched rear part extending above the outlet-opening, a filling-tube attached to the reservoir, and a vent device for the reservoir.

5 4. A drinking-fount including a reservoir having a filling-tube and also a vent device, a drinking-trough attached to the reservoir, a false bottom in the trough, a casing on the reservoir, filling between the reservoir and  
10 the casing, and a brace attached to the casing and the trough.

5 5. A drinking-fount comprising a reservoir having an imperforate filling-tube attached to the bottom part thereof and extending ex-  
15 teriorly to the top thereof, a drinking-trough attached to the reservoir with an opening from the reservoir to the trough, a casing surrounding the reservoir and filling-tube and having a flange extending over part of the  
20 trough, and filling material forming covering about the reservoir and filling-tube within the casing and upon the flange thereof.

25 6. A drinking-fount comprising a reservoir having a water-box attached to the top part thereof, a vent-tube connected to the reservoir and extending into the water-box but not to the top thereof, a stopper for the vent-tube, a filling-tube connected to the reservoir adjacent to the bottom thereof, a casing ex-

tending about the reservoir and detachably 30 connected to the bottom thereof, a covering extending about and over the reservoir in the casing, a drinking-trough attached to the reservoir and extending through the covering and the casing, and a brace attached to the 35 trough and also detachably connected to the casing.

7. A drinking-fount comprising a reservoir having a bottom provided with an annular flange, a casing having a lateral flange de- 40 tachably secured to the flange of the reservoir-bottom, a drinking-trough attached to the reservoir and extending through the casing, a flange extending over part of the trough, a channel between the reservoir and the trough, 45 a filling-tube attached to the lower part of the reservoir and extending exteriorly thereof within the casing, a covering for the reservoir between it and the casing and ex-  
50 tending about the filling-tube, a vent-tube attached to the top of the reservoir, and a lid on the casing.

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

HARVEY M. SMITH.

Witnesses:

HARRY D. PIERSON,  
E. T. SILVIUS.