No. 682,480. Patented Sept. 10, 1901.

J. L. A. MEYSSONNIER.

APPARATUS FOR FILLING AND EMPTYING RESERVOIRS AUTOMATICALLY.

(Application filed May 16, 1901.)

(No Model.)

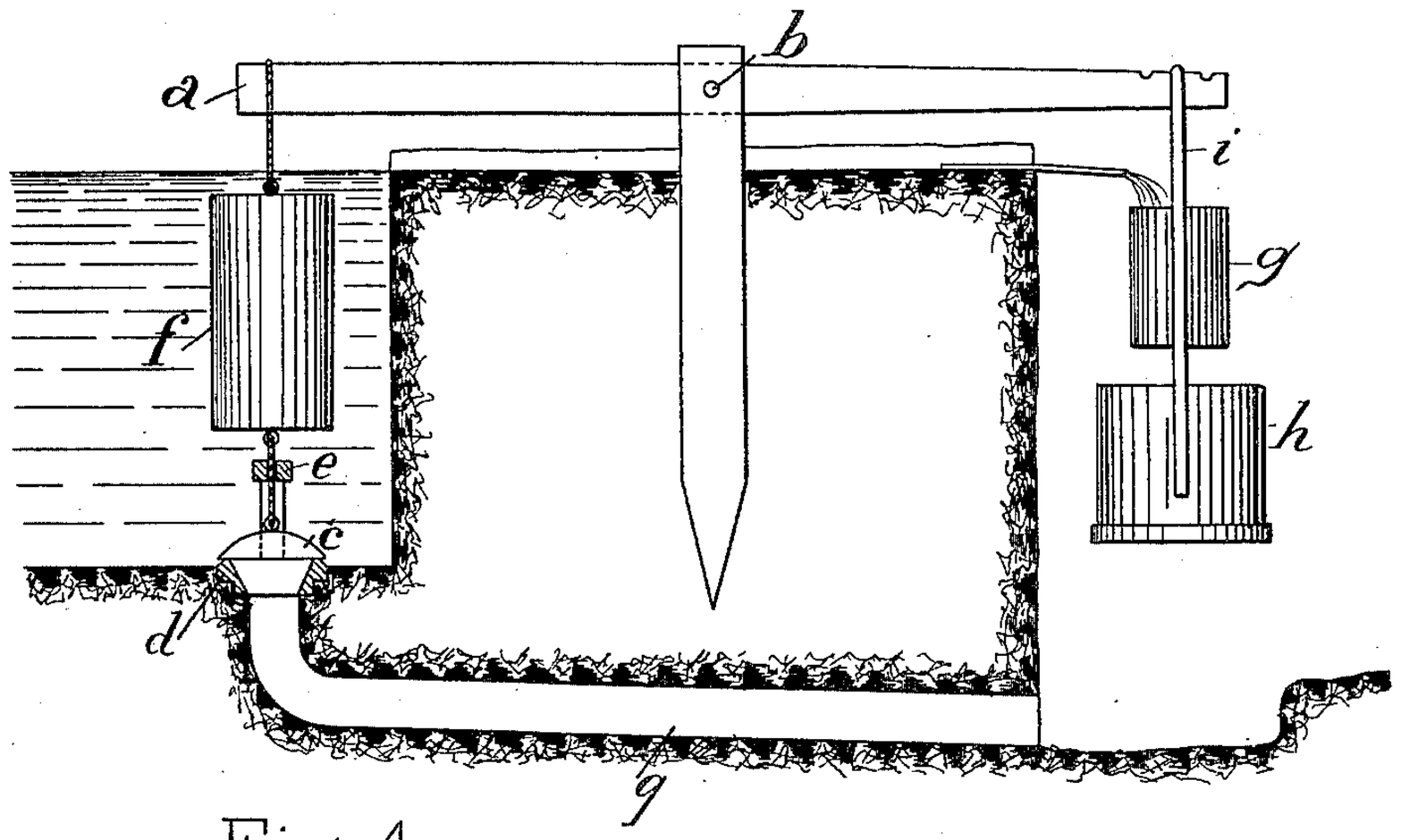


Fig. 1.

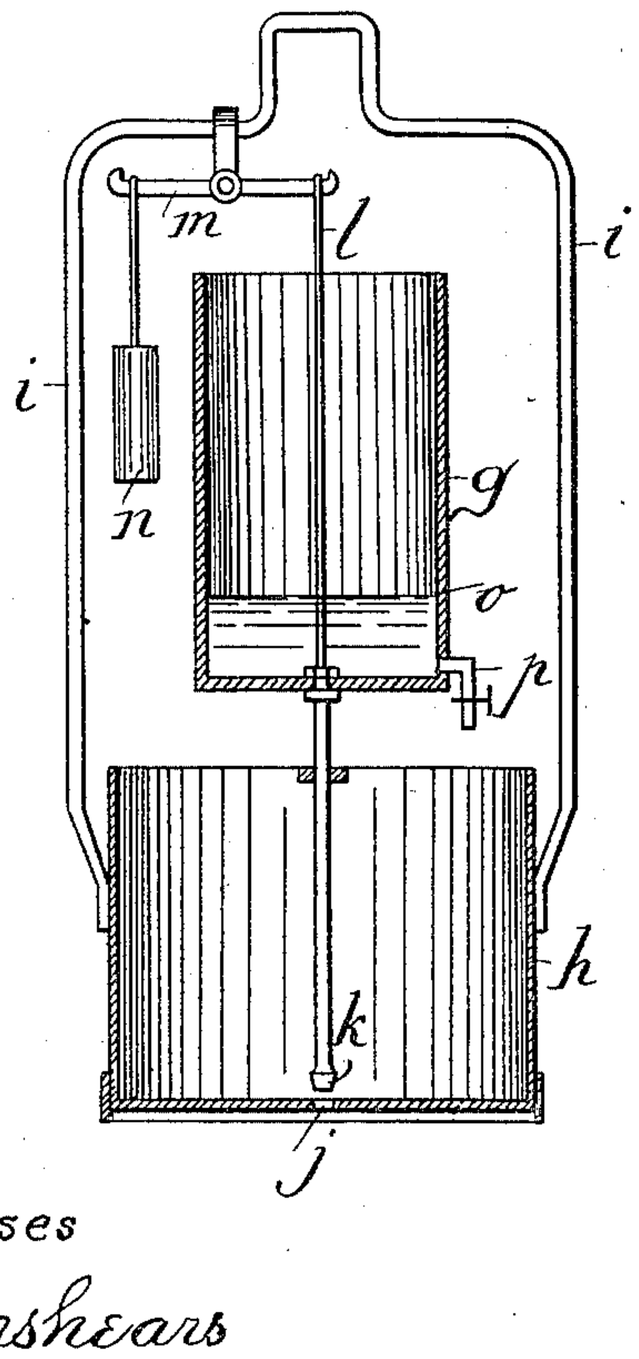
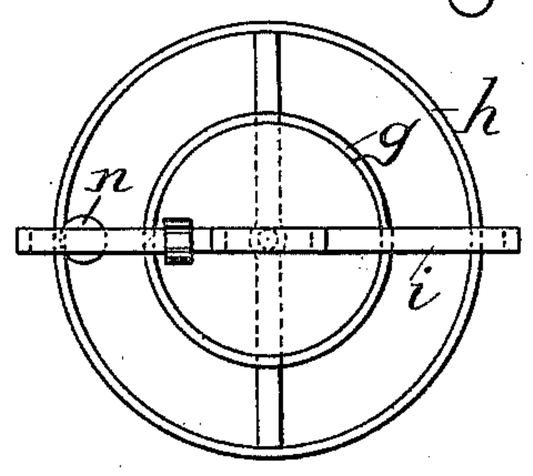


Fig. 2.

Fig. 3.



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JEAN LOUIS ADRIEN MEYSSONNIER, OF PRIVAS, FRANCE.

APPARATUS FOR FILLING OR EMPTYING RESERVOIRS AUTOMATICALLY.

SPECIFICATION forming part of Letters Patent No. 682,480, dated September 10, 1901.

Application filed May 16, 1901. Serial No. 60,553. (No model.)

To all whom it may concern:

Be it known that I, JEAN LOUIS ADRIEN MEYSSONNIER, a citizen of the French Republic, residing at Privas, France, have invented certain new and useful Improvements in Apparatus for Filling or Emptying Reservoirs Automatically; 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 appertains to make and use the same.

The present invention relates to an apparatus for filling and emptying reservoirs, tanks, and other receptacles automatically in certain determined intervals. The emptying of the reservoirs or the like, the liquids of which can be applied for agricultural, industrial, watering, or other purposes, takes place as soon as the receptacle is filled by opening of a valve, which is suspended at the outer end of a suitable lever. The overrunning water goes into two buckets of suitable capacity, which are placed one over the other and fixed outside of the reservoir at the other end of the lever in such a manner that the buckets serving as counterpoise are able to raise the valve. As soon as the reservoir is emptied by a convenient aperture the water of the buckets will run out and the valve will go again in its seat, thus permitting the filling up of the reservoir.

In the accompanying drawings an apparatus in accordance with this invention is represented by way of example, in which—

Figure 1 is a front view of the apparatus applied to a tank; Fig. 2, a vertical section of the apparatus. Fig. 3 is a top plan view.

The apparatus consists of a movable lever *a*, which is supported at *b* by a suitably-arranged pivot. At one end of this lever the valve *c* is suspended, while the seat of this valve *d*, provided with an india-rubber ring, is fastened at the bottom of the tank. A cross-piece *e* guides the suspending-rod of the valve *c* and prevents its rising too high. A float *f*, carried by the suspending-rod of the valve, serves to annul the weight of the water column, which effects a pressure upon the said valve *c*. The other end of the lever *a*, situated outside of the tank, carries two buckets *g* and *h*, placed one over the other, the lower being suspended by an iron bow *i*. The lower bucket *h* is provided in its bottom with an aperture *j*, closed by a valve *k*, fixed on a spindle to the bottom of the upper bucket *g*. The suspending-rod *l* of the spindle of the valve *k* and of the bucket *g* is carried at one end of lever *m*, which is suspended at its middle from the iron bow *i*. The other end of this lever *m* carries a counterpoise *n*, keeping the bucket *g* in equilibrium in such a manner that the valve *k* is raised at the same time when the apparatus is ready for use. As soon as the tank is full the overrunning water flows through a channel into the bucket *g*, and when it reaches a certain height—as, for example, at *o* and determined by the weight *n*—it lowers the said bucket *g*, and at the same time the valve *k* closes the aperture *j* of the large bucket *h*. The water of the bucket *g* runs slowly through a small pipe *p* into the bucket *h* until a sufficient weight is in the bucket *h* to raise the valve *c*, when the water of the tank will run rapidly through a tube *q* into a trench or the like. As soon as the tank is empty, the water of the upper bucket having been only partially emptied during the time that the tank is being emptied, the weight *n* falls and raises the bucket *g*, the valve-spindle, and also the valve *k*, whereby the bucket *h* empties itself rapidly by means of the aperture *j*, while the valve *c* will rest again upon its seat by means of its own weight, thus permitting the filling up of the tank.

What I claim as my invention, and desire to secure by Letters Patent, is—

In an apparatus of the character specified the combination with a liquid-receptacle having a discharge-opening in its bottom, a lever pivoted intermediate its ends, a valve-stem depending from one end of the lever, a float on said stem, a valve on said stem adapted when lowered to close the discharge-opening, a metal bow suspended on the other end of the lever, a lower bucket carried thereby with an opening in its bottom, a counterpoised valve-stem suspended from the bow, adapted when lowered to close the opening in the lower bucket, an upper bucket secured on the valve-stem, a small discharge-pipe from the upper to the lower bucket, and a small overflow-channel from the main receptacle into the upper bucket, substantially as described.

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

JEAN LOUIS ADRIEN MEYSSONNIER.

Witnesses:
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