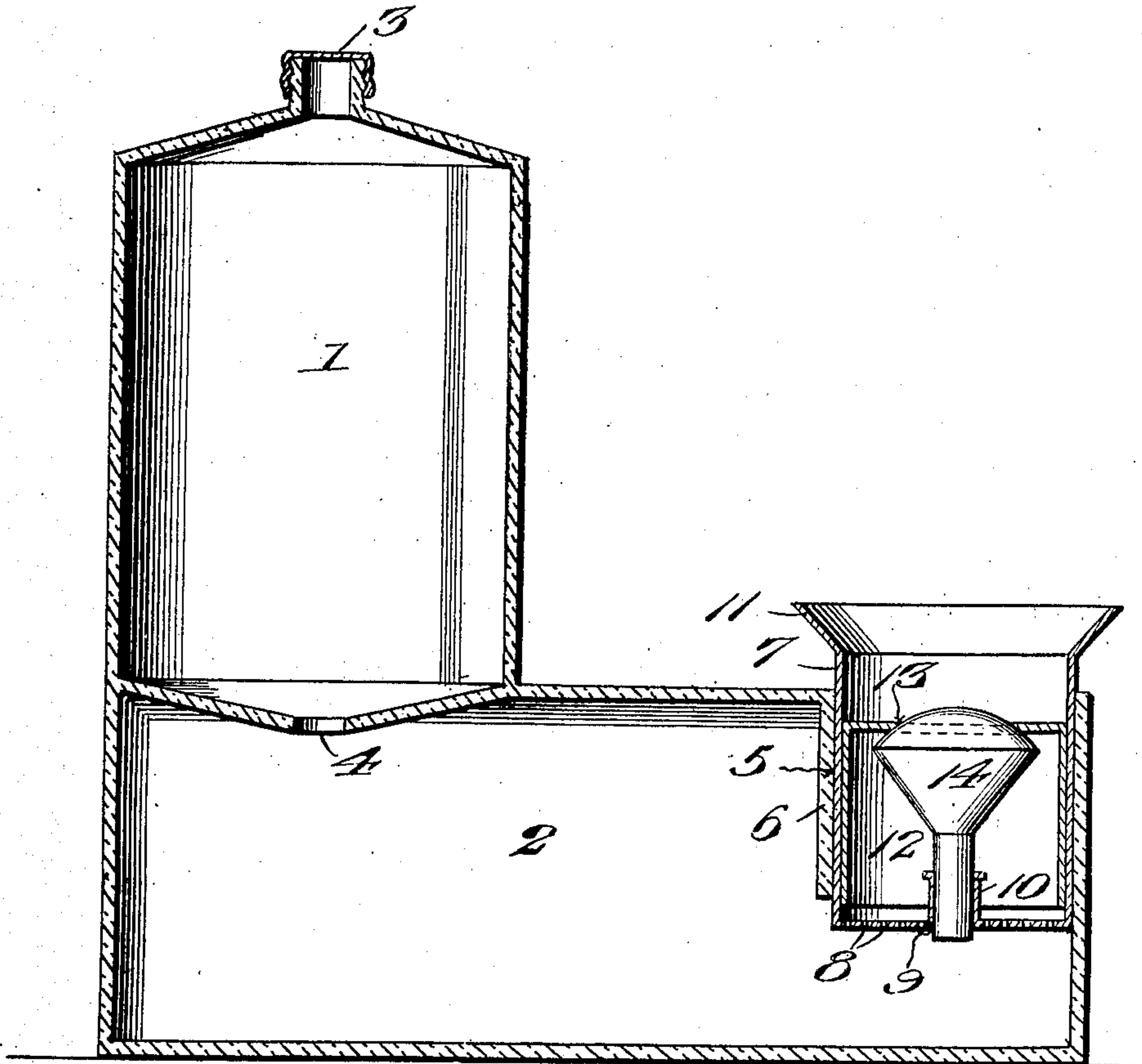


S. B. SMITH & W. THISSEN.
INK WELL.

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919,482.

Patented Apr. 27, 1909.



Witnesses

Wm. A. Koertge
Geo. Ackman

By

Inventors
Schuyler B. Smith
Walter Thissen
Victor J. Evans
Attorney

UNITED STATES PATENT OFFICE.

SCHUYLER B. SMITH AND WALTER THISSEN, OF SAYRE, PENNSYLVANIA.

INK-WELL.

No. 919,482.

Specification of Letters Patent.

Patented April 27, 1909.

Application filed December 22, 1906. Serial No. 349,154.

To all whom it may concern:

Be it known that we, SCHUYLER B. SMITH and WALTER THISSEN, citizens of the United States, residing at Sayre, in the county of Bradford and State of Pennsylvania, have invented new and useful Improvements in Ink-Wells, of which the following is a specification.

The invention relates to an improvement in ink-wells of the automatic type in which a determinate quantity of ink is delivered to the pen and the ink protected against deterioration when the ink-well is not in use.

The main object is the provision of an ink-well made in two communicating sections, with one of the sections formed to receive a simple form of valve by which the dip of the pen is limited and the ink protected from evaporation when not in use.

The invention will be described in detail in the following specification, reference being had to the accompanying drawings, in which:—

The figure represents a vertical sectional view of an ink-well constructed in accordance with our invention.

Referring to the drawings our improved ink-well comprises two receptacles 1 and 2, integrally connected and forming respectively the filling tank and the reservoir. The tank 1 is arranged upright having a filling nipple closed by a cap 3, and its bottom downwardly inclined and forming a portion of the top of the reservoir, the receptacles communicating through an opening 4 in the tank bottom. The reservoir is of greatest length at right angles to the tank, whereby a portion of the upper wall is arranged beyond the wall of the tank. Near the edge remote from the tank 1, the upper wall of the reservoir is formed with an opening 5 from the edge of which depends a circular wall 6, forming a valve chamber.

The valve in use with the ink-well comprises a circular casing 7 circumferentially of a size to slidably fit within the wall 6, the lowest end of the casing being closed by a perforate bottom 8 formed with a central opening 9 having a vertically extending circular wall 10 bounding the same. The upper end of the casing is flaring, as at 11, to facilitate the entrance of the pen. A pen guide 12 is arranged within the casing, comprising a cup-shaped body open at the bottom and closed at the top with the exception of a small central opening 13, as shown.

The guide is diametrically of a size to fit within the casing 7, and be frictionally held at any desired point within the casing, whereby to adjust the dip of the pen, as desired.

Within the guide is arranged a float 14 comprising an inverted cone-shaped body having a rounded upper end, and a depending stem to fit within the wall 10 of the casing. The float is arranged within the guide with its rounded upper end closing the opening 13, and the stem fitting within the wall 10 of the casing. The float is thus free for limited vertical movement, as will be evident from the drawing.

With the parts assembled as described, the ink from the tank will fill the reservoir and rise in the casing 7. In desiring to supply the pen, the latter is introduced through the opening 13 in the guide and pressure exerted upon the float, causing the latter to move away from the opening and permitting the ink to reach the pen. Upon withdrawal of the pen the opening 13 is immediately closed by the rising float, and the ink protected from evaporation. The adjustability of the guide 12 within the casing 7, permits a regulation of the quantity of ink admitted to the pen, as the more closely the guide is arranged to the bottom of the casing, the less the range of movement of the float and hence the smaller quantity of ink delivered to the pen. The tank serves to continually supply the reservoir as the level in the latter falls below the valve mechanism, as will be evident. In this connection it is to be understood that when the ink in the dipping receptacle falls too low to hold the float in position to seal the opening 13, a renewed charge of ink will be allowed to flow into the receptacle by removing the cap 3 of the filling tank to admit air to the latter above the level of the fluid therein.

The tank and reservoir are preferably of glass, while the valve parts are of non-corrosive metal, the float being preferably aluminum.

While showing and describing a single ink-well, it is obvious that the improvement is equally applicable to a double ink-well, and we contemplate such as part of our invention.

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

1. An ink-well comprising a tank, a reservoir in communication therewith, a valve

opening formed in the reservoir, a casing seated in said opening, a pen guide arranged within the casing, and a float arranged between the guide and casing, said guide being adjustable within the casing to vary the movement of the float.

2. An ink-well comprising a tank, a reservoir in open communication therewith and formed with a valve opening, a casing movable within the opening and having a perforate bottom, a guide arranged within the casing and formed with a pen opening, and a float arranged between the guide and casing and normally closing the pen opening in the guide.

3. An ink-well comprising a tank, a reservoir in open communication therewith and formed with a valve opening, a casing movable within the opening and having a perforate bottom, a guide movable within the casing and formed with a pen opening, and a float arranged between the guide and casing and normally closing the pen opening in the guide, said guide being adjustable to vary the movement of the float.

ing and normally closing the pen opening in the guide, said guide being adjustable to vary the movement of the float.

4. An ink-well comprising a tank a reservoir in open communication therewith and formed with a valve opening, a casing movable within the opening and having a perforate bottom, a guide movable within the casing and formed with a pen opening, a float arranged between the guide and casing and normally closing the pen opening in the guide, a stem depending from the float, and means carried by the casing to receive and guide the stem.

In testimony whereof, we affix our signatures in presence of two witnesses.

SCHUYLER B. SMITH.
WALTER THISSEN.

Witnesses:

M. H. SAWTEL,
SINN GLASH.