

No. 661,334.

Patented Nov. 6, 1900.

F. M. ASHLEY.

INK WELL.

(Application filed June 13, 1900.)

(No Model.)

Fig. 1.

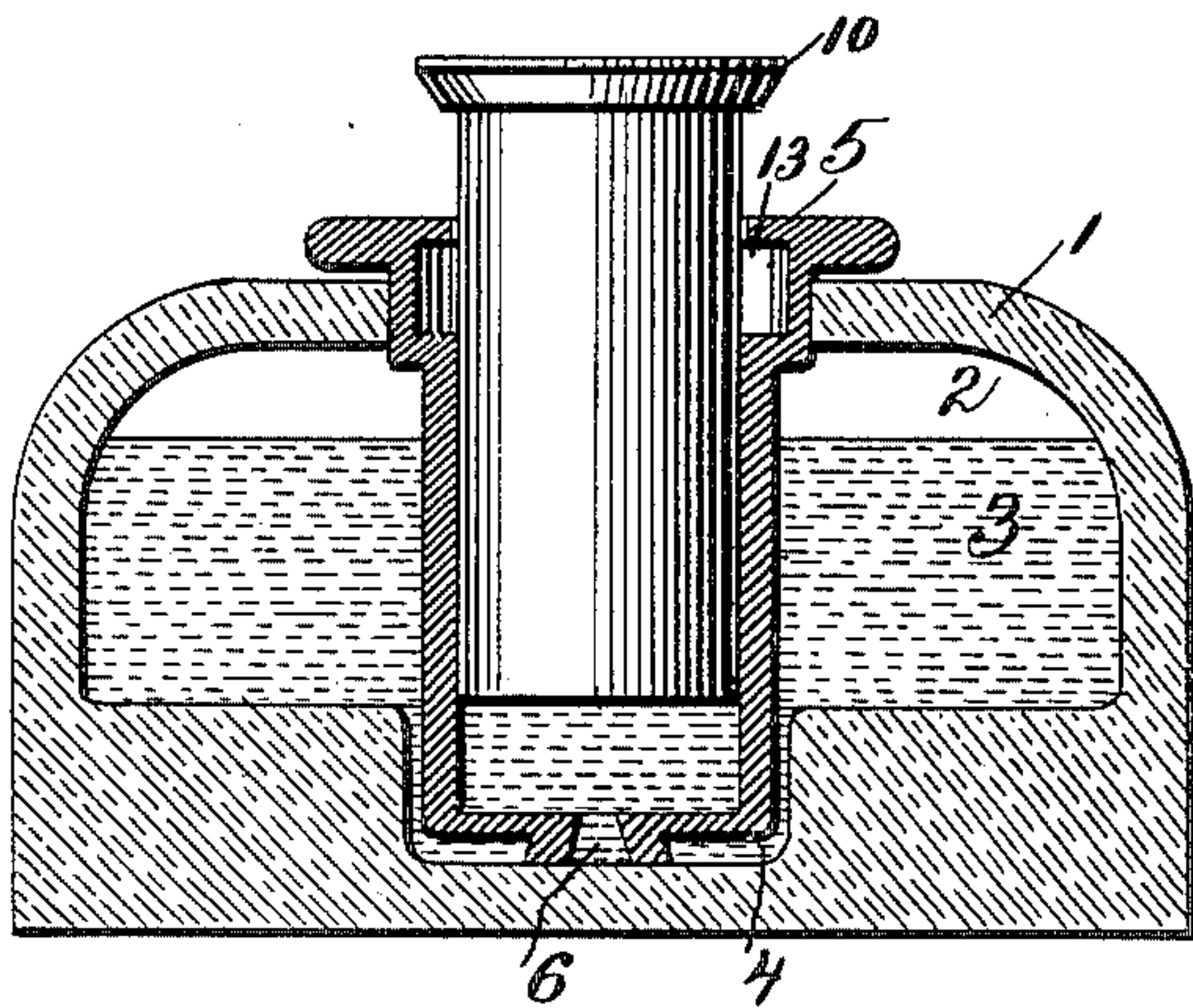


Fig. 2.

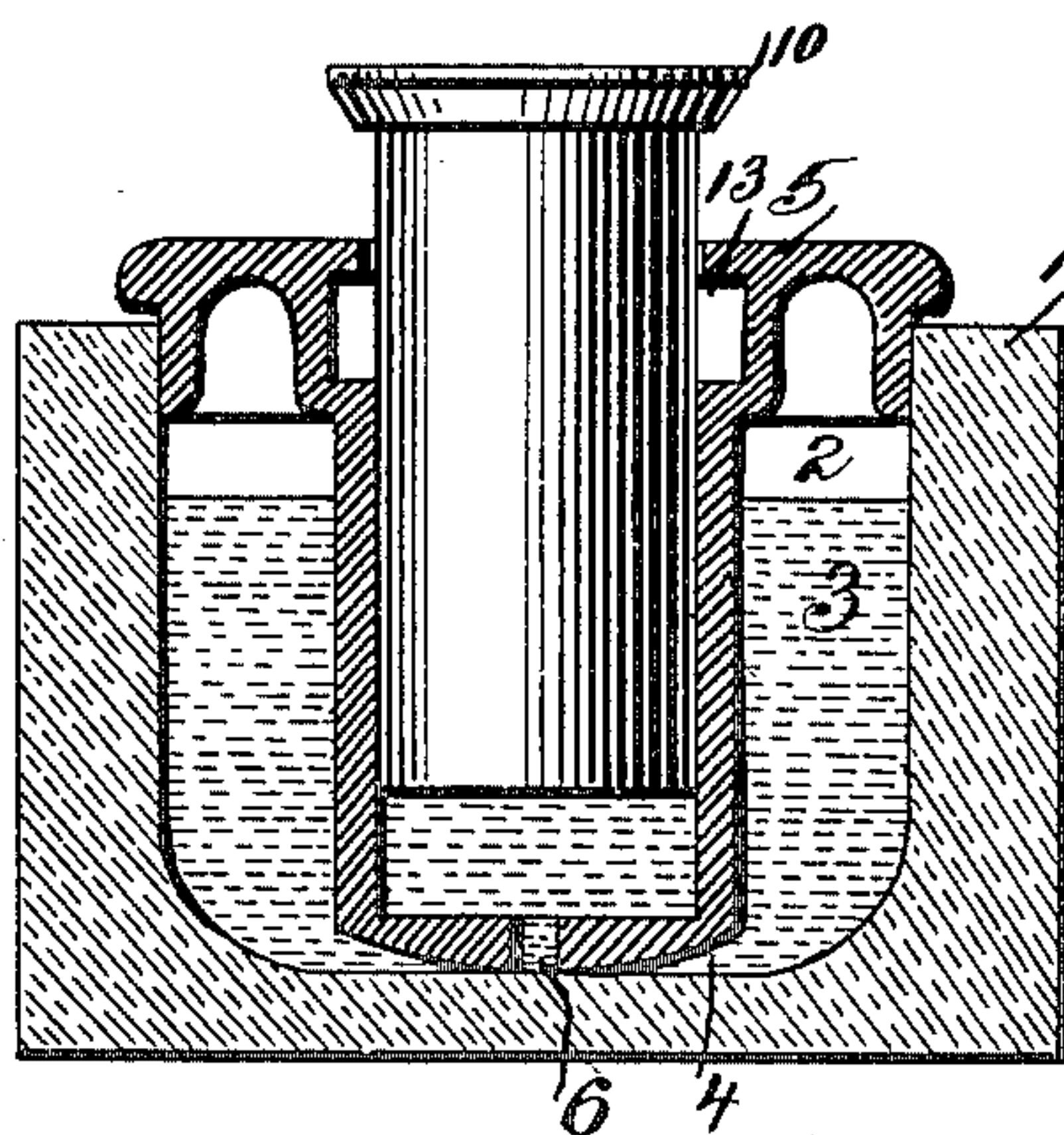


Fig. 3.

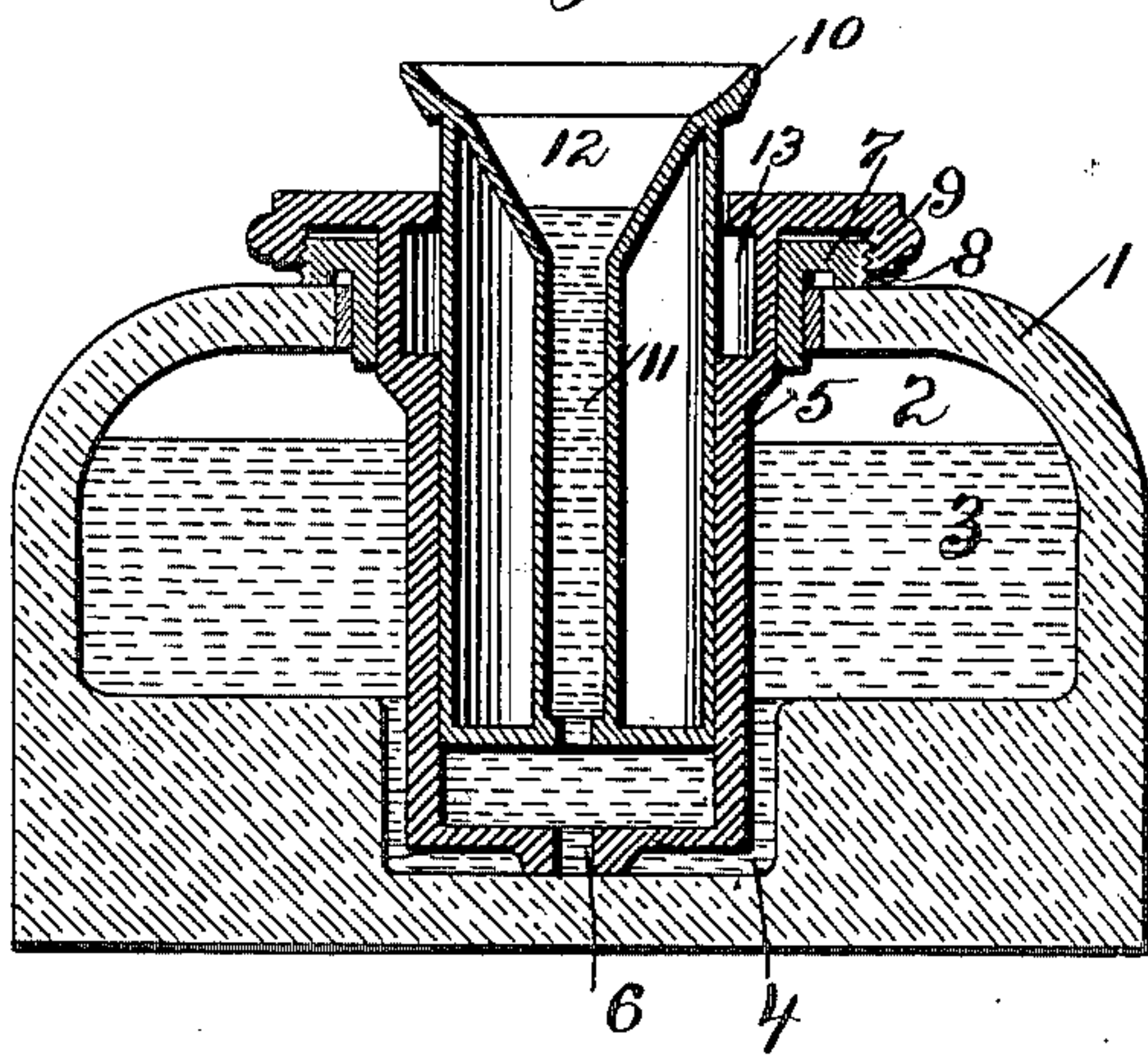
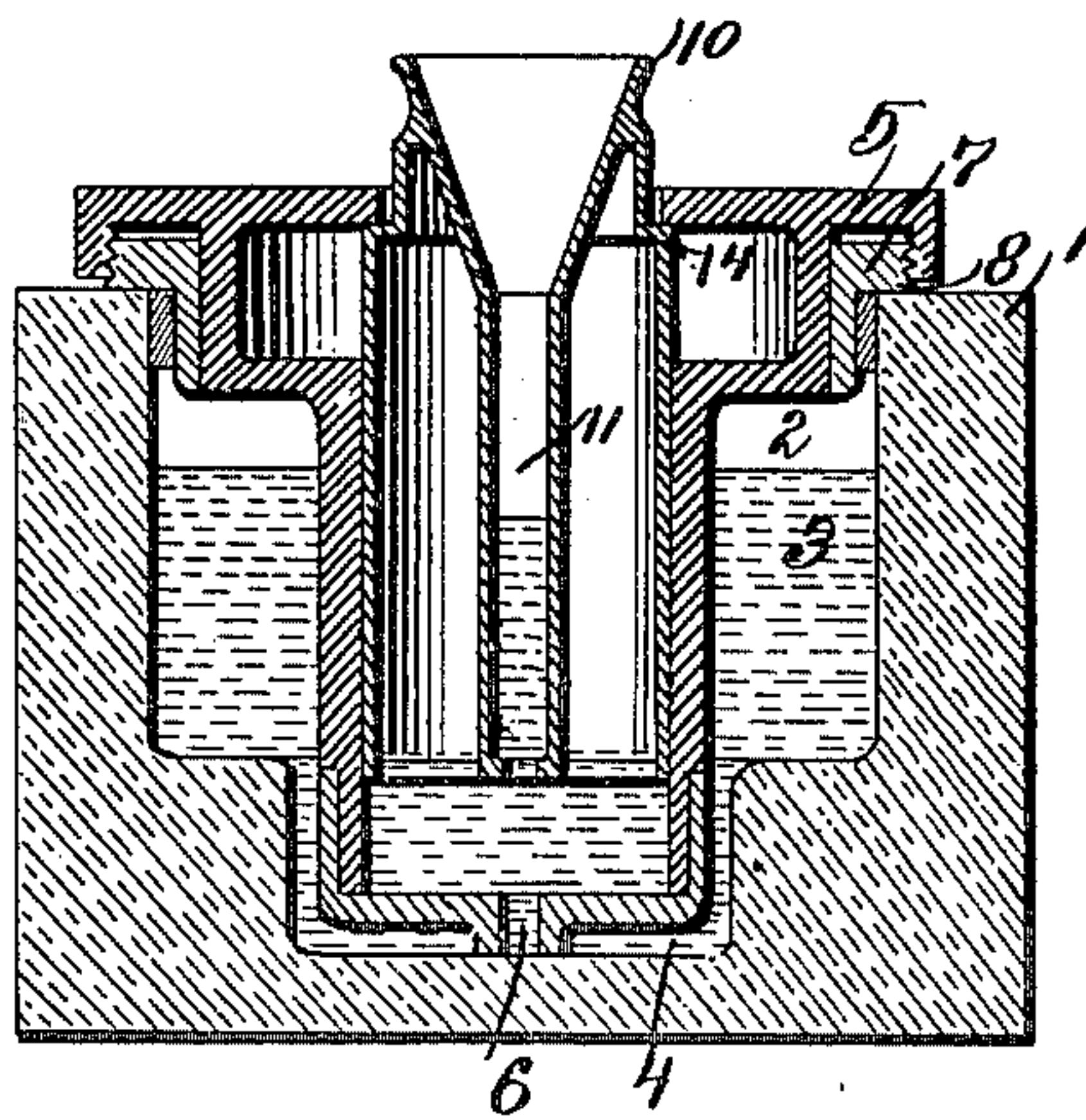


Fig. 4.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

FRANK M. ASHLEY, OF NEW YORK, N. Y.

## INK-WELL.

SPECIFICATION forming part of Letters Patent No. 661,334, dated November 6, 1900.

Application filed June 13, 1900. Serial No. 20,106. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK M. ASHLEY, a citizen of the United States, residing at New York city, in the county of Kings and State of New York, have invented certain new and useful Improvements in Ink-Wells, of which the following is a full, clear, and exact specification.

This invention relates to ink-wells; and its object is to construct a simple and slightly well of the dip-funnel float type which shall be capable of easy manipulation and regulation, positive in operation, which shall be of large capacity, and all of the parts of which may, if preferred, be made of non-corrosive indestructible material. I further propose to provide a well of this type in which the height of the ink in the reservoir, and consequently the height of the float, may be regulated without the removal of any part.

My invention, therefore, broadly speaking, comprehends a body having a cistern of large capacity, a sleeve projecting down into the cistern, means for closing the lower end of the sleeve, and thus trapping therein a portion of the ink from the main reservoir, and a float having a central tube, the float fitting loosely in and guided by the sleeve and adapted to be pushed downward therein, thereby forcing the ink up through the tube into the dip-cup.

The invention will be more particularly described hereinafter with reference to the forms thereof shown in the accompanying drawings, in which—

Figures 1 to 4, inclusive, each represent a cross-sectional view of one of the various modifications which the construction may take.

Referring more particularly to the drawings, 1 represents the body of the well, and 2 the cistern or reservoir, in which is contained the ink 3. The body and cistern may be of any suitable shape or form and, if preferred, an extension or supplementary reservoir 4 may be formed in the bottom of the cistern, although this is not material. A sleeve 5 is loosely fitted in the top of the body portion and extends downward to the bottom of the cistern, being capable of being bodily lifted or removed from the well. This guide-sleeve is open at both ends, the bottom open-

ing 6 being relatively small with respect to the top opening and of varying size, according to the size of the well and the character of the ink to be contained therein. If preferred, the opening 6 may be tapered, as shown in Fig. 1, which form of opening will be found to be of service in more quickly trapping the ink upon the downward movement of the sleeve. It is to be understood, however, that the form of the opening may be varied to meet individual condition without departing from my invention. The sleeve is adapted to rest upon the bottom of the cistern when not otherwise supported, so that the weight of the sleeve presses the edges of the opening 6 tightly enough against the bottom to seal the opening. In order to effect a better closure of the opening 6 when the sleeve is dropped into position to rest upon the bottom of the cistern, the lower end of the sleeve may be formed with a substantially flat surface or may have a partially-flattened surface substantially as shown in the figures of the drawings. This closure may, however, be effected in any well-known manner, even by employing a rubber washer on the sleeve or a mat upon the cistern; but this, however, is not desirable, as I consider the use of rubber objectionable, and the parts may just as well be of glass or other indestructible material, the weight of which will be found sufficient to effect a complete closure. The sleeve should in all cases fit into or be supported by the body portion in such a manner that the air will be free to pass from the outside atmosphere to the cistern when the sleeve is lifted and so that it can be conveniently raised out of engagement with the bottom of the well to permit ink to pass from the cistern into the guide-sleeve or in the opposite direction. This may be accomplished by the constructions shown in Figs. 1 and 2, wherein the sleeve is loosely surrounded directly by the walls of the body, or by the constructions shown in Figs. 3 and 4, wherein a collar 7 is supported in the body and provided with a screw-thread 8, the guide-sleeve being loosely fitted into this collar and provided with a thread 9, engaging the thread 8, whereby the sleeve is raised and lowered by turning the sleeve. The float 10 may be of any suitable type adapted to loosely fit within the sleeve



and having a central tube 11 leading to the dip-opening 12. The float may either be closed at its lower end, as illustrated in Fig. 3, or open, as shown in Fig. 4. The overflow-chamber 13 is a convenient and useful, but not material, feature of my ink-well. The float may, if preferred, be provided with an annular shoulder 14 or other equivalent means for limiting the upward movement thereof.

The well should be filled by removing the float and raising guide-sleeve sufficiently to open the passage 6. The ink is then poured through the sleeve into the cistern until it reaches the desired height. The sleeve is then lowered until it makes contact with the bottom of the cistern and seals the opening, and the float is dropped into position in the sleeve, resting upon the portion of the ink trapped in the sleeve by the closure of opening 6. When the float is forced downward, the pressure of its bottom, if it be closed, or the compression of the air therein, if it be open, will force the ink up through the central tube into the dip-opening.

It will be seen that the float may be kept at any desired normal height by merely regulating the quantity of ink trapped within the sleeve. For illustration, if it be desired to raise the normal height of the float the sleeve may be raised until the amount of ink trapped within the same is increased by ink flowing in from the cistern. It may be lowered by raising the sleeve and forcing the tube down, so as to force some of the ink out of the sleeve into the reservoir. With the construction illustrated in Fig. 4 this height is automatically regulated when the inkstand is filled. The ink is poured into the cistern through the float, the sleeve being raised to open passage 6 by raising the float. When the float is dropped, the sleeve will also drop, and the downward movement of the sleeve will always trap the same quantity of ink.

It will be understood, of course, that the device above described is capable of various modifications, some of which are shown in the drawings, without departing from my invention.

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

1. In an ink-well, the combination with the body containing a cistern, of a sleeve removably supported therein and having an opening in its lower end adapted to be sealed by the weight of the sleeve when it contacts with the bottom of the cistern, a float moving in said sleeve, and means for raising the ink in said float by the depression thereof, substantially as described.

2. In an ink-well, the combination of the body portion containing a cistern, a cylindrical sleeve having its upper end open and its lower end closed with the exception of a small opening therein, said sleeve removably supported in said body portion and resting by gravity therein with its closed end upon the bottom of the cistern, whereby the weight of said sleeve seals the said opening, and a depressible float moving in said sleeve, substantially as described.

3. In an ink-well, the combination of a body containing a cistern, a sleeve open at both ends, the lower opening being relatively small and having tapered sides, said sleeve being adapted to rest upon the bottom of said cistern and thereby close said small opening, and a depressible float moving in said sleeve, substantially as described.

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

FRANK M. ASHLEY.

Witnesses:

CHARLES H. NUMAN,  
E. T. PERRY.