

(No Model.)

C. L. WHEELER, Jr.
STOPPER FOR INKSTANDS.

No. 482,051.

Patented Sept. 6, 1892.

Fig. 1.

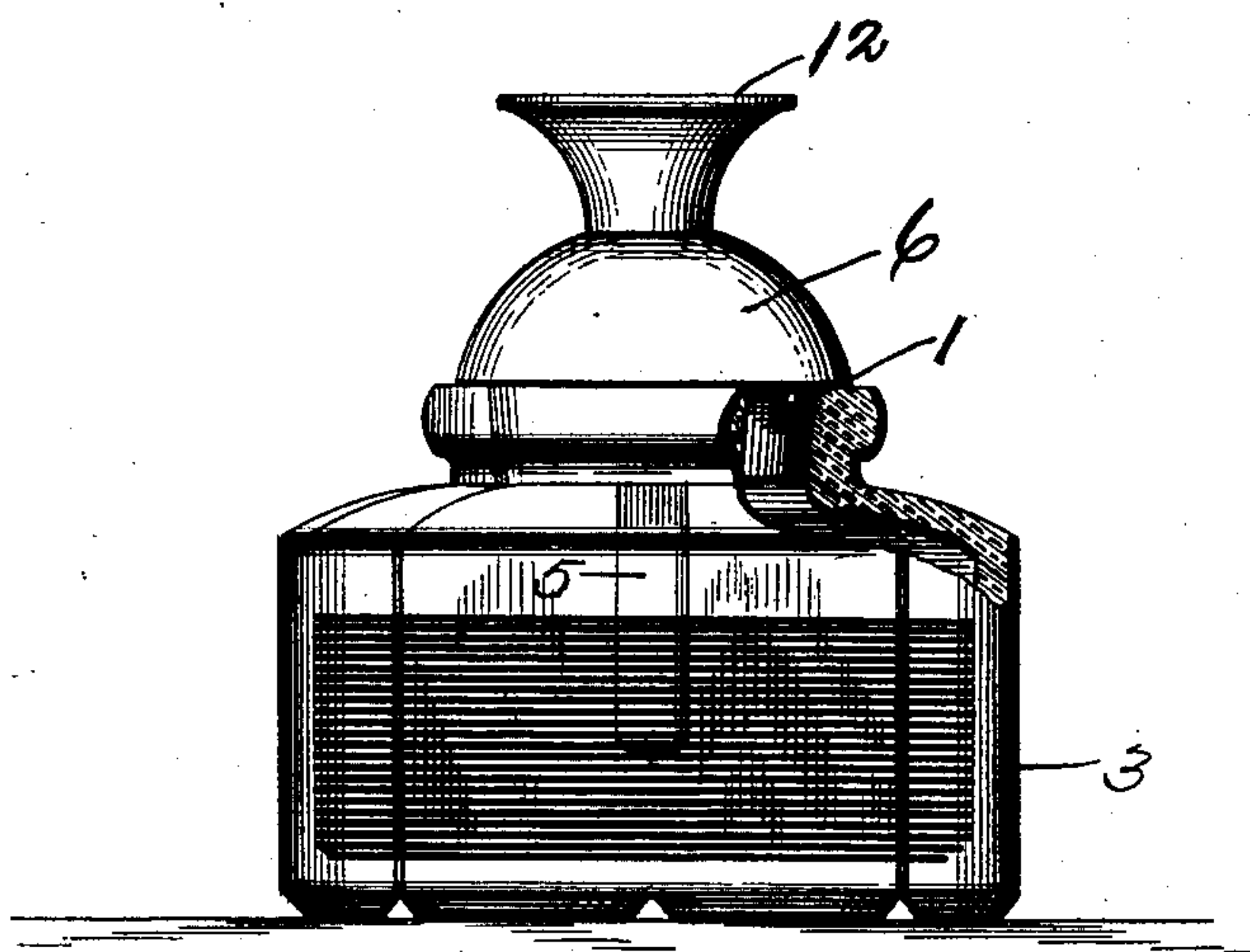


Fig. 2.

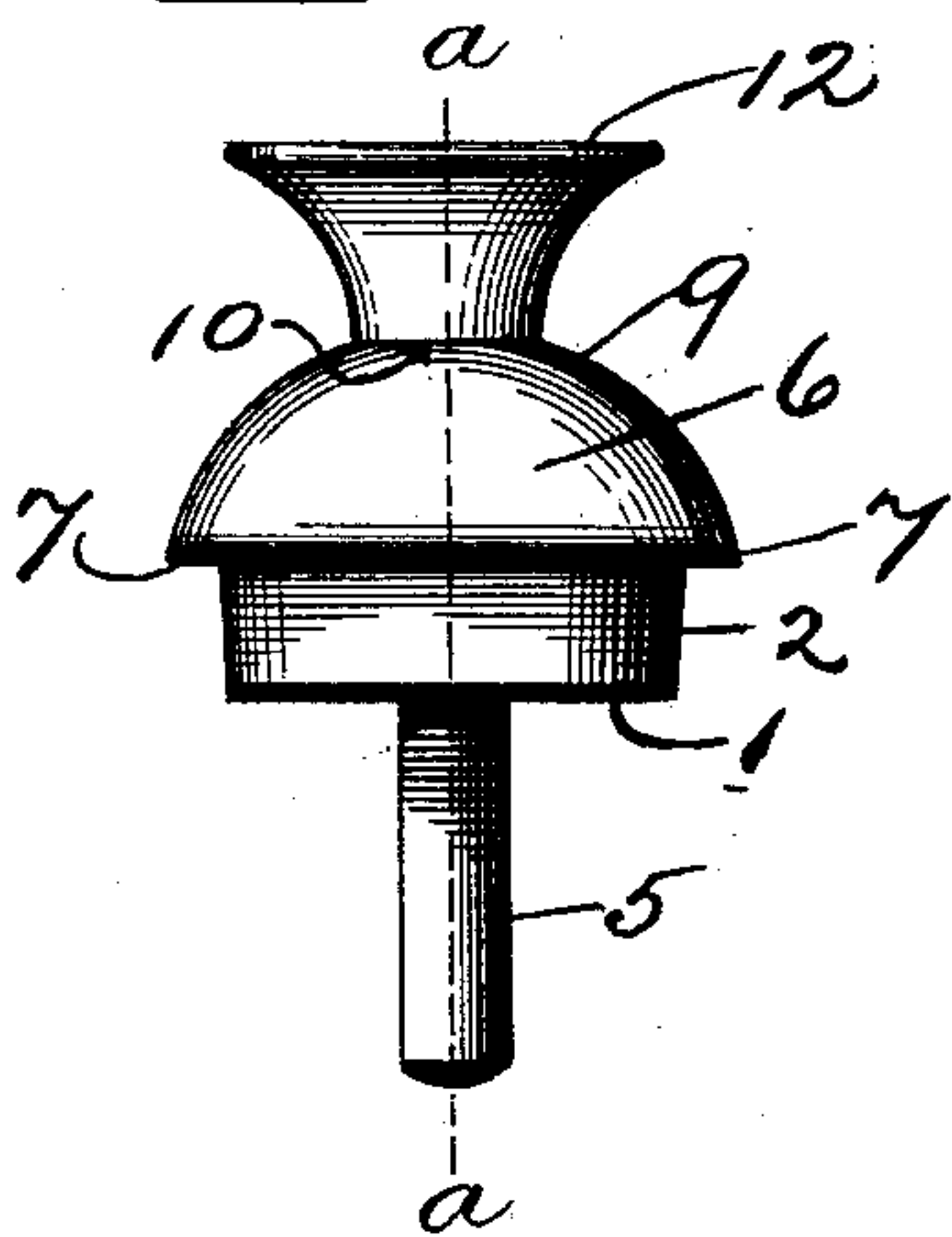
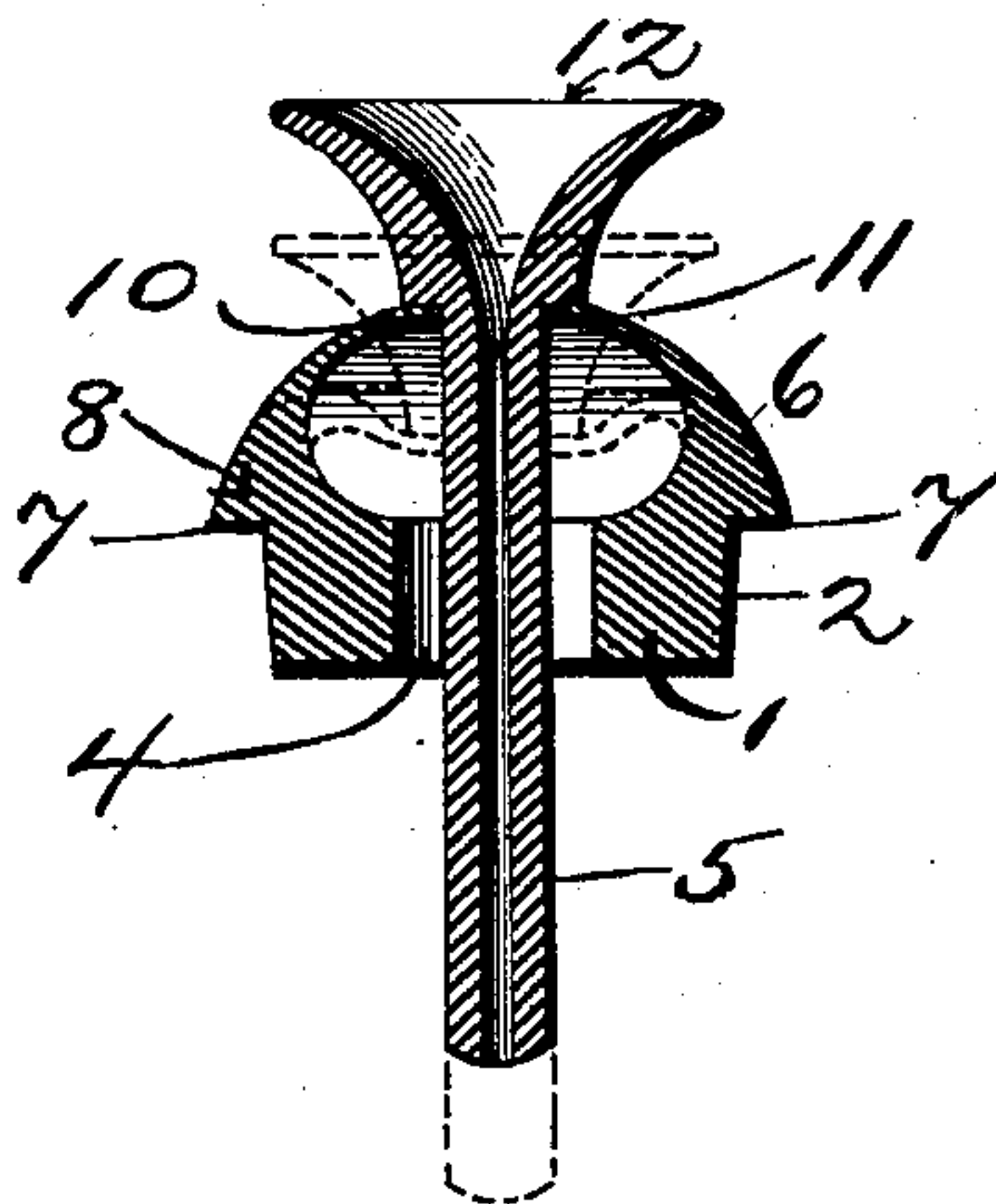


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

CHARLES L. WHEELER, JR., OF BRADFORD, PENNSYLVANIA.

STOPPER FOR INKSTANDS.

SPECIFICATION forming part of Letters Patent No. 482,051, dated September 6, 1892.

Application filed December 31, 1891. Serial No. 416,630. (No model.)

To all whom it may concern:

Be it known that I, CHARLES L. WHEELER, Jr., a citizen of the United States, residing at Bradford, in the county of McKean and State of Pennsylvania, have invented certain new and useful Improvements in Stoppers for Inkstands; 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.

This invention relates to improvements in that class of stoppers for inkstands where ink is pneumatically supplied from the ink-well to a receptacle carried by said stopper and the pen filled with ink on a downward pressure being exerted by said pen upon said stopper.

My improved stopper is adapted for application to and use in connection with ink-wells of ordinary construction and is constructed with a neck of taper outer circumference to adapt it to snugly fit air-tight the mouths of wells of varying circumference. This neck is of sufficient thickness to admit of the stopper being inserted within and removed from the ink-well an indefinite number of times without affecting the shape of or causing any displacement of the material of which it is composed, whereby it is rendered practically indestructible in use, a central vertical bore being formed in said neck to receive the stem of the ink supplying or conveying tube. Extending upwardly from said neck and either formed integrally therewith or separately therefrom and joined thereto is a dome-shaped or semi-spherical cap having the central portion of its apex of greater flexibility than the remaining portion and provided with an opening to receive the ink-supply tube, which has a cup or funnel shaped top, into which the ink is supplied to supply the pen.

In the accompanying drawings, Figure 1 represents, in side elevation, an inkstand or ink-well having my improved stopper therein. Fig. 2 represents a side elevation of my improved stopper. Fig. 3 represents a section thereof, taken on the line *a a* of Fig. 2.

My improved stopper is designed to be made entirely of rubber, as it can thereby be very cheaply and readily molded, though the

neck can be constructed of any other suitable substance—as cork, papier-maché, and the like—if desired; but I prefer to construct the stopper entirely of rubber by reason of the cheapness and readiness with which it can be formed therefrom.

1 represents the neck, which, as shown, is formed with downwardly-tapering walls or circumference 2, whereby the stopper is adapted to fit snugly and air-tight within the mouth or bore of ink-wells 3, of considerably-varying area. By forming it of rubber or similar flexible material the neck will adjust itself to any inequalities there may be in the mouth of the ink-well, and thereby hermetically seal and render air-tight the space between the outer wall of the neck and the inner face of the mouth of the ink-well. This neck, it will be observed, is of considerable thickness, which permits of the stopper receiving rough usage when being placed in and removed from the ink-well and of being so inserted and removed an indefinite number of times without in any manner affecting either the shape or wearing quality of said neck—a great desideratum in this class of stoppers, where when that portion which is inserted in the ink-well is of thinner material or of greater flexibility than is mine it is subject to such destruction or injury after comparatively short usage as to render its sealing quality defective. Centrally of this neck is a vertical bore or hole 4, of greater diameter than the diameter of the ink-supply tube 5, whereby said tube will be permitted freedom of lateral movement without injury to or destruction of the stopper. 6 represents a dome-shaped or semi-spherical top or cap. This may be either molded integrally with the neck or formed separately therefrom and cemented or otherwise attached thereto. This cap or cover is of greater circumference than is the neck 1, whereby a circumferential flange 7 is formed at its bottom, which when the stopper is in position rests upon the rim of the mouth of the ink-well. This cap is at its lower portion 8—that portion which is grasped by the user in handling the stopper—formed of sufficient thickness and rigidity to permit of handling without compressing or in any manner affecting its shape. By this construc-

tion no amount of handling to which it may be subjected will affect either the shape or utility of the stopper. The apex 9 of the cap has a central orifice 10, of less diameter than the diameter of the ink-supply tube 5, and that portion of the cap surrounding said orifice 10 is of less thickness, as shown at 11, and of greater flexibility than is the lower portion of said cap. By thus forming the apex of greater flexibility than the remaining portion of the cap and forming the opening 10 therein of less area than the circumference of the tube 5 said tube will be firmly gripped and an airtight connection formed between them. The ink-supply tube will be permitted free vertical movement, said thinner and more flexible portion 11 of the cap most readily responding to the action of the pen depressing the tube 5 and with equal readiness returning to its extended position. The ink-supply tube 5 has at its upper end a funnel or cup shaped portion 12, into which ink is pneumatically forced on the tube being depressed by the pen. The interior portion of the dome-shaped cap constitutes an air-chamber, within which is contained the air by the displacement of which and the supply of said air to the ink-well when the cap is depressed the ink is pneumatically forced up the tube 5 into the funnel-shaped top 12.

My improved stopper, it will readily be seen, while withal of most simple construction and one that can be readily and cheaply constructed, is most effective and is capable of application to wells of varied construction and size, and does not require either a special form of ink-well or of accessories to secure said stopper and well together. It will withstand rough usage and can be transported in bulk without special packing without injury or deterioration. It has no complicated parts liable to get out of order.

Having thus described my invention, what I claim is—

1. A stopper for inkstands, consisting of a flexible cork adapted to fit ink-wells of different sizes, said cork being provided with a central opening of greater diameter than the dip-cup to admit of the lateral play of said tube and having a dome-shaped top having a central opening therein and a very flexible and yielding apex and comparatively thick lower walls, substantially as set forth.

2. A stopper for inkstands, consisting of a flexible cork having thick walls, a central opening of greater diameter than the dip-cup or ink-conveying tube to permit of the lateral play of said tube within said opening, and a dome-shaped top having comparatively thick lower walls and a thin flexible and easily-yielding apex and a central opening to receive the dip-cup or ink-conveying tube, in combination with an ink-conveying tube and dip-cup, substantially as set forth.

3. In a stopper for inkstands, the combination, with a dip-cup and ink-conveying tube, of a cork having a lower portion of a thickness and solidity to adapt it to fill the mouth of the ink-well and having a tapering circumference to adapt it to fit ink-wells of different sizes and a central opening of greater diameter than the diameter of the ink-conveying tube, and a dome-shaped cap having a thin flexible and easily-yielding centrally-bored apex and comparatively thick lower walls, substantially as and for the purpose set forth.

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

CHARLES L. WHEELER, JR.

Witnesses:

ROBT. L. EDGETT,
E. J. CLARK.