

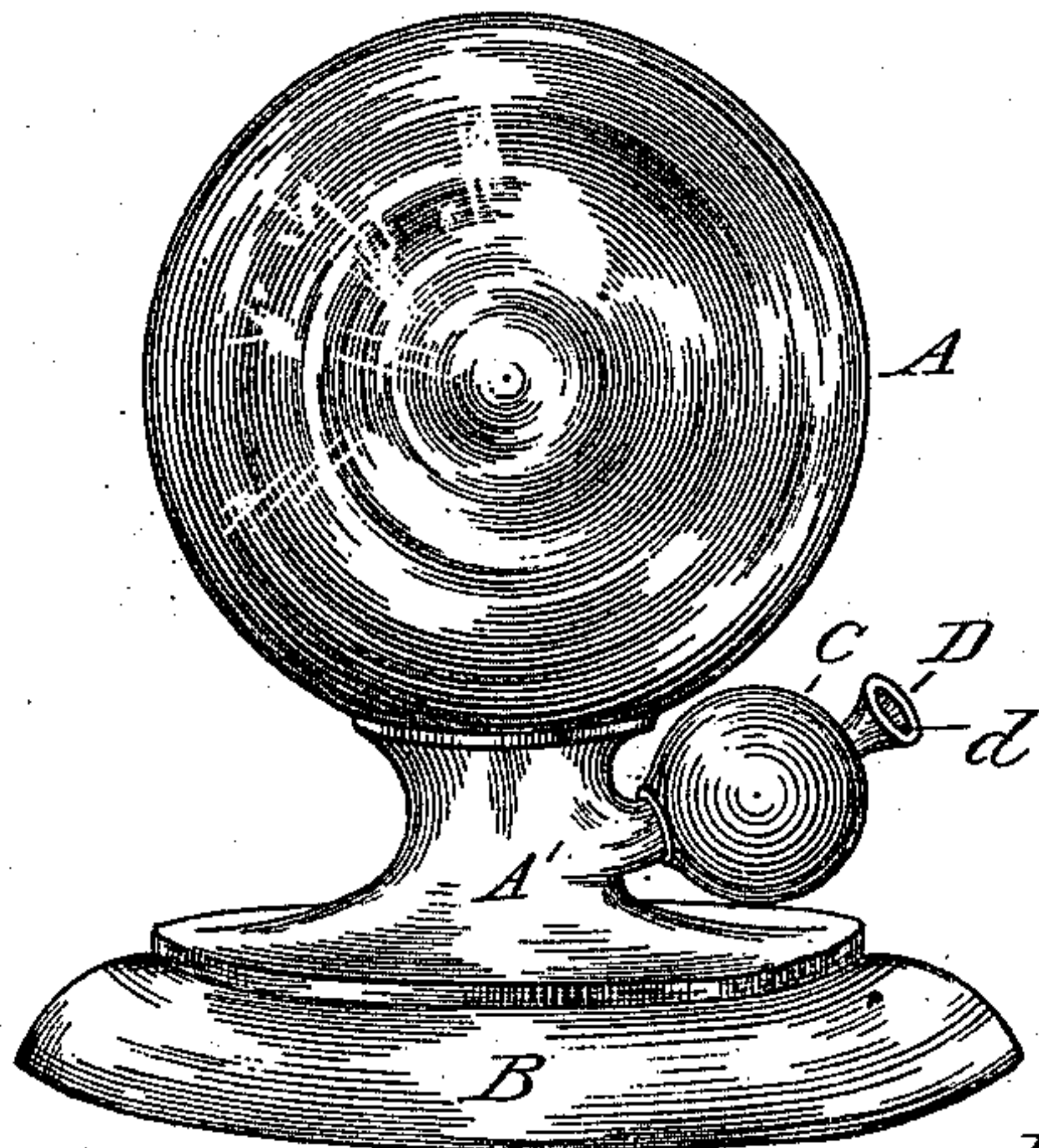
(No Model.)

J. R. COOPER.  
INKSTAND.

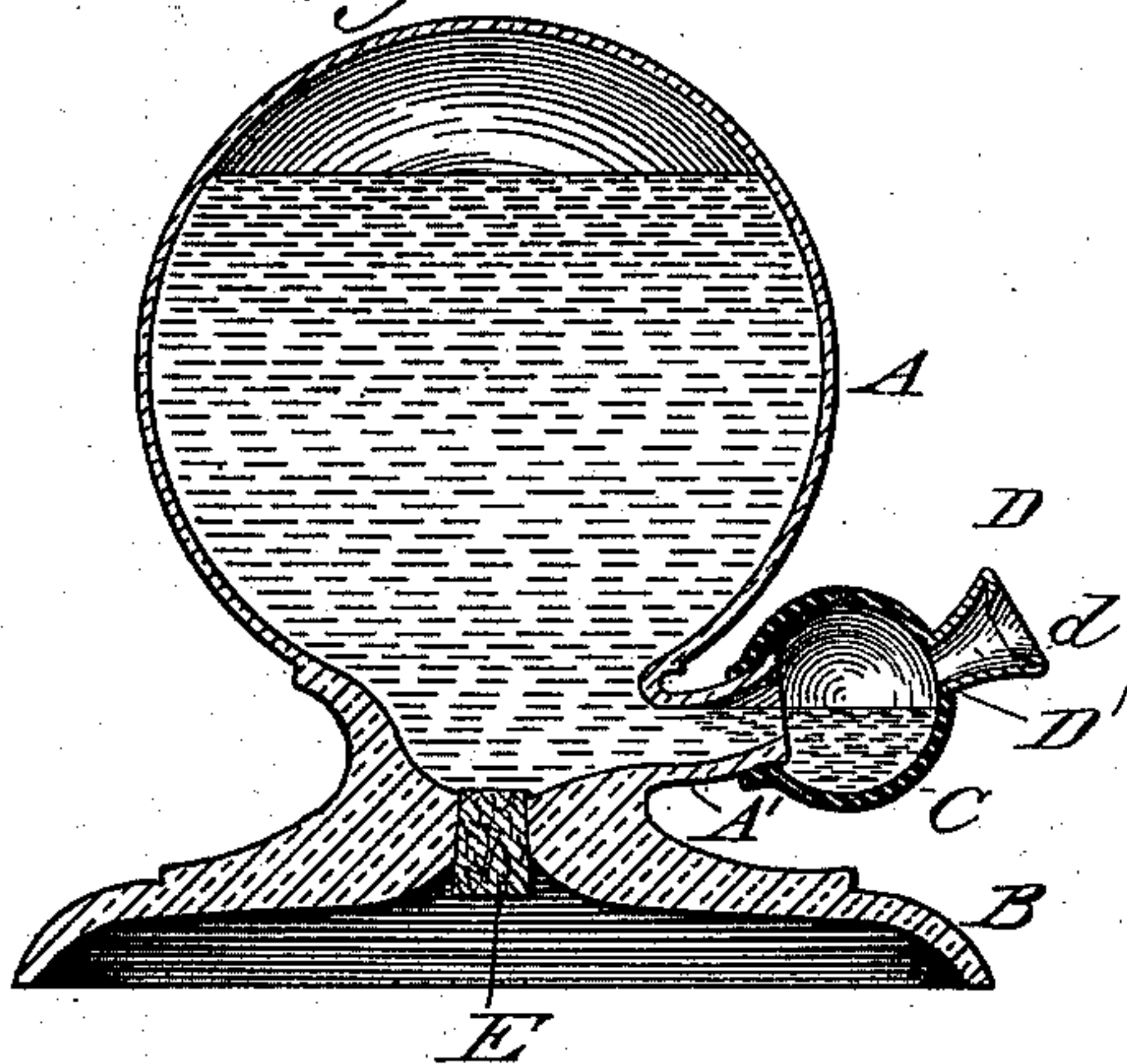
No. 412,601.

Patented Oct. 8, 1889.

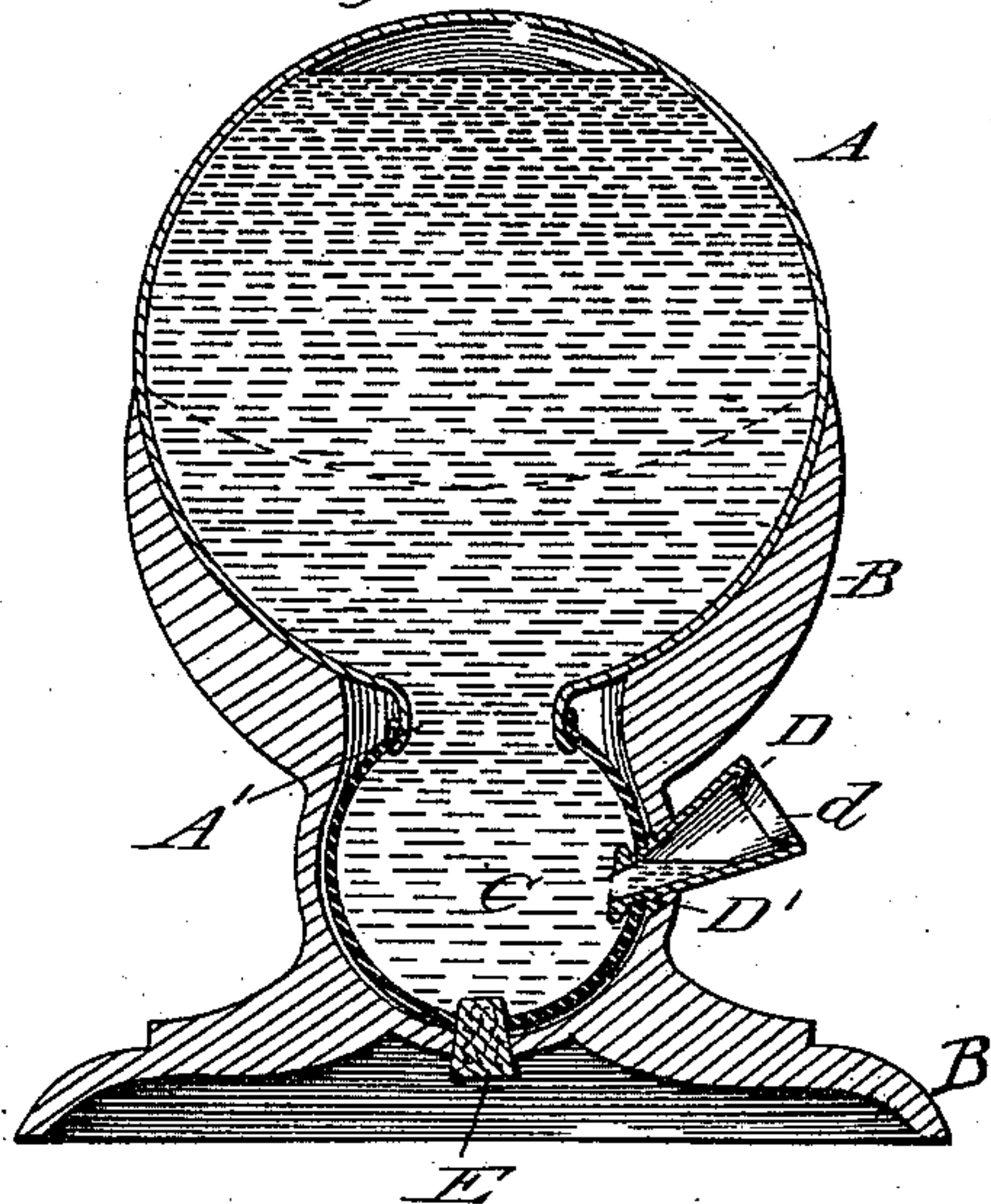
*Fig. 1.*



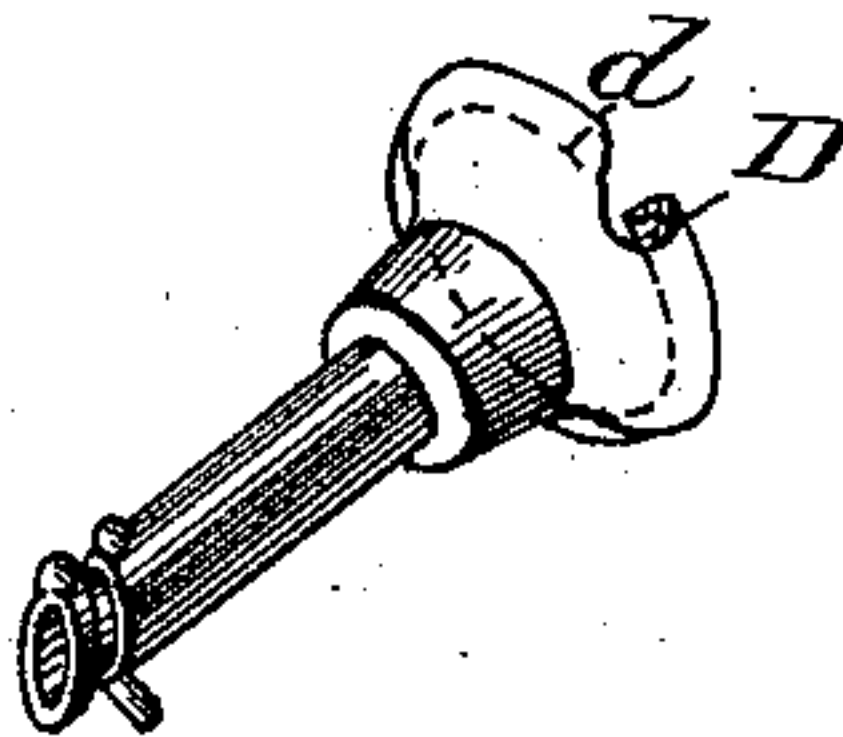
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



Witnesses:

H. W. Ballard.

Myron H. Peck Jr.

Inventor:

John R. Cooper  
By J. W. Ford  
Atty.



# UNITED STATES PATENT OFFICE.

JOHN R. COOPER, OF ROCHESTER, NEW YORK.

## INKSTAND.

SPECIFICATION forming part of Letters Patent No. 412,601, dated October 8, 1889.

Application filed May 21, 1889. Serial No. 311,629. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN R. COOPER, a citizen of the United States, residing at Rochester, in the county of Monroe and State of New York, have invented a new and useful Improvement in Inkstands, of which the following is a specification.

My invention relates to that class of inkstands having a hollow closed vessel, within which the fluid is placed and therein hermetically sealed, and having attached thereto a corresponding auxiliary receptacle, flexible in its nature, with a continuous conductory opening between the two vessels, the flexible one of which is provided with an open pen-dip; and the object of the improvement is to provide a cheap and efficient ink-holder that will yield a supply of ink for filling the pen at each dip of the same, any surplus fluid immediately receding within the air-tight holder, thus preventing the thickening of the ink by its contact with the open air by which the flow of the same becomes retarded. I attain this object by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of the complete device. Fig. 2 is a sectional view taken through the vertical center of the same. Fig. 3 is a cross-sectional view of a modification; and Fig. 4 is a perspective view of the pen-dip detached, showing (in dotted lines) the flange for preventing the overflow of any surplus ink.

Similar letters refer to similar parts throughout the several views.

The ink-holder A, provided with the discharge-opening A' and stand B, may be made entirely of glass or other suitable material; or, if desired, the supporting-stand may be of wood or metal and the ink-holding receptacle of glass. I prefer glass for the main ink-holder on account of its transparency, whereby it may be seen when the ink is low in the holder and in need of replenishing.

C is an auxiliary ink-receptacle of any desired form secured to and forming an extension to the neck or discharge-opening A', and having the pen-dip D securely attached thereto. This part C is hollow, of course, (as well as A,) and made of rubber or some other flexible material, the walls of which are quite

thin, so as to yield upon a slight pressure for a purpose which will presently appear.

E is a stopper to the opening centrally made in the bottom of the stand, through which opening the ink passes while in the act of filling the ink-holder.

The pen-dip mouth-piece D is made tapering or funnel-shaped, and is provided (upon the enlarged end) with a flange *d*, projecting inward toward the axial center, by which any overflow of ink is prevented when in practical use. The ink-outflow opening D' of this pen-dip mouth-piece is made small, so that but a diminutive quantity of ink will pass as the flexible portion of the ink-holder is pressed, which process will now be explained.

The flexible ink-holder is placed below the main ink-receptacle, so that it will at all times, by the force of gravity, remain filled with ink from the upper reservoir, and when filled any pressure upon the outside will cause a corresponding depression upon the inside of the wall with a consequent ejection of a portion of the fluid from therein. Now, in practical use, as the point of the pen is placed within the orifice D' and a slight inward pressure given the ink immediately passes through the orifice and fills the pen, which, when removed, the flexibility of the part C causes it to assume its normal position, sucking back any of the fluid that may remain in the opening, the atmospheric pressure sealing the orifice until the act is repeated, thus at all times keeping the ink free from exposure to the air and preventing the thickening of the fluid by such exposure.

To prevent any overflow of ink by the mouth of the pen-dip consequent upon too great a pressure, the flange *d* is provided, which insures safety from any such overflow, even upon undue pressure.

In the modification, Fig. 3, I place the flexible holder within the body of the stand and directly underneath the non-flexible ink-holder, with the ink-filling orifice made upon the lower side of the flexible holder, the contents passing therefrom into the main holder instead of entering direct, as is shown in Figs. 1 and 2, the principle being the same, each working equally well.

I do not desire to confine myself to the



specific location of the filling-aperture nor the cylindrical form of the parts, as any desired shape may be given the inkstand with like results. The entire ink-holder may be of  
5 one part and made flexible, being mounted upon a rigid foundation; but this endangers the accidental displacement of the ink from excessive pressure upon this flexible part, and therefore an entire closure of this flexi-  
10 ble part, as in C, Fig. 3, may be considered preferable.

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

15 1. The combination, with an ink-reservoir provided with a filling opening closed by a removable stopper and mounted upon a rigid supporting-stand, of the flexible ink-holder at the base of the reservoir, and having the  
20 pen-dip mouth-piece by its minute outflow-opening directly attached to the flexible ink-holder below the body of ink, whereby the

pressure of the pen alone in the mouth-piece will, by the contracting of the flexible ink-holder, cause sufficient ink to gravitate into 25 the pen-dip for filling the pen, the residue of ink upon the removal of the pressure and the resumption of a normal position of the parts returning to the ink-holder, substantially as described, and for the purpose herein set 30 forth.

2. The combination, with the flexible ink-holder mounted upon a rigid stand, of the mouth-piece provided with the minute opening connected directly to the flexible ink- 35 holder below the body of ink and having the inwardly-extending flange upon the open edge of the pen-filling mouth-piece for the prevention of an overflow of ink, substantially as described and herein set forth.

JOHN R. COOPER.

Witnesses:

R. W. MANN,  
GEORGE W. ASHTON.