(No Model.)

# J. THOMSON.

## INKSTAND.

No. 570,191. Patented Oct. 27, 1896.

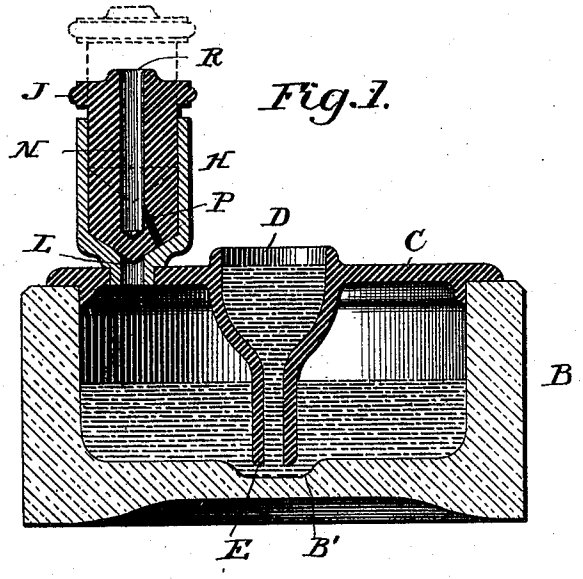



Fig. 1.

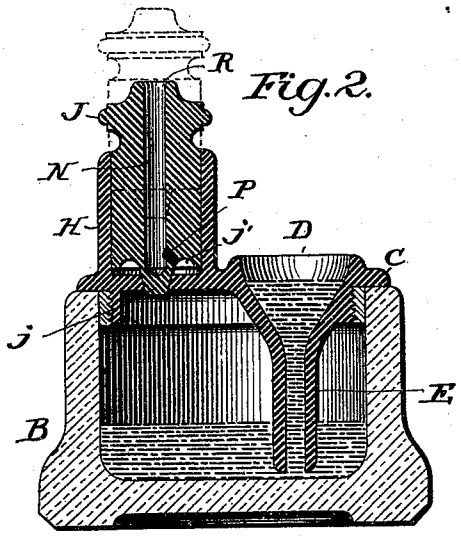
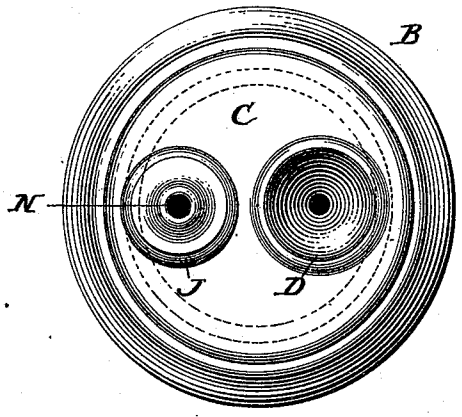



Fig. 2.

Fig. 3.

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# UNITED STATES PATENT OFFICE.

JOHN THOMSON, OF BROOKLYN, NEW YORK.

## INKSTAND.

SPECIFICATION forming part of Letters Patent No. 570,191, dated October 27, 1896.

Application filed May 29, 1896. Serial No. 593,618. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN THOMSON, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Inkstands, of which the following is a specification.

My invention relates to inkstands, and has for its object to provide a simple, cheap, and effective stand; and to these ends my invention consists in a stand embodying the features of construction substantially as hereinafter more particularly pointed out.

In the accompanying drawings, wherein I have illustrated the preferred embodiment of my invention, Figure 1 is a vertical central section illustrating the construction and operation of the device. Fig. 2 is a similar view of a slightly-modified construction, and Fig. 3 is a plan of the latter.

My invention relates more particularly to that class of inkstands wherein there is a reservoir containing the ink, a dip-well extending down into the reservoir, and means whereby the ink from the reservoir may be forced into the dip-well for use and withdrawn therefrom into the reservoir when not in use; and the object of my present invention is to provide an inkstand which shall be simple and cheap of construction, that shall be practically instantaneous in its operation, and that shall preserve the ink in the best condition.

While the principles of my invention may be embodied in various forms and shapes, I have shown in the accompanying drawings a practical construction well adapted for the purposes intended.

The inkstand comprises a reservoir B, which may be of glass or other similar material, and which is provided with an inclosing plate or cover C, preferably of hard rubber, secured in the reservoir in any suitable way, but fitting it so as to form a practically air-tight joint. The inclosing plate is provided with a dip-well D, preferably having an extended tube E, reaching nearly to the bottom of the reservoir, and if desired the reservoir under the tube may be recessed, as shown at B′, Fig. 1. Mounted on the plate is a cylinder H, and this may be separate and secured to the plate, as shown in Fig. 1, or, as preferred, it may be made integral with the plate, as shown in Fig. 2. Arranged to move in the cylinder is a plunger or piston J, which may also be of rubber or similar material. In order to maintain an air-tight joint against the head of ink in the dip-well, the cylinder H is preferably provided with a relatively small opening L, and the plunger is of relatively heavy material, so that it will not be forced upward by the air-pressure due to the head of ink in the dip-well. In the construction illustrated in Fig. 1 the plunger J is made conical to fit a conical bearing in the bottom of the cylinder, while in the construction shown in Fig. 2 the end of the plunger is provided with a conical projection *j*, fitting a conical opening in the plate, and around the projection is a recess *j′*, from which extends a perforation P, forming an air vent or passage. Preferably this perforation P is relatively small at its lower end and opens into a larger passage or central bore N in the plunger, which extends to the upper end thereof, and it is adapted to be covered by the finger when necessary or desirable. In the construction shown in Fig. 1 the vent-hole or passage P is in the joint-making face of the plunger, while in Fig. 2 the vent-hole is above this surface, and therefore is the gēnerally-preferred construction.

The plunger J is preferably round, fits closely in the cylinder H, makes an air-tight joint at the opening L, and if there is any wear the plunger can be turned to grind the wearing-faces and produce an accurate fit.

With this general description of the construction of the device, the operation will be readily understood.

In order to supply the reservoir with ink, it must be filled through the dip-well and its tube, the displaced air escaping through the opening L, the plunger, of course, being slightly elevated or withdrawn, when no ink will remain in the ink-well. Replacing the plunger in the cylinder and tightly covering the central bore at R by the finger it will act like a pump, compressing the air and forcing the ink from the reservoir up through the tube into the dip-well to any desired height, where it is maintained by the air-tight joint between the plunger and cylinder, closing the vent P. The plunger being seated the vent P is sealed, and as no air can escape the head of ink in the

dip-well will be maintained, but by slightly lifting the plunger this seal will be broken and the dip-well will at once be emptied. To again refill it, the plunger may be withdrawn, as to a position shown by dotted lines, and either quickly depressed or more slowly by placing the finger over the bore N, preventing the escape of the air until it is reseated, which will force the ink from the reservoir into the dip-well and maintain it as before.

If it is desired to discharge the ink in the dip-well outwardly, as for cleansing, this can be done by simply holding the plunger to its seat and turning the inkstand upside down, when the ink in the well will run out, the ink in the tube and reservoir being maintained in place by the air-pressure.

Having thus described my invention, what I claim is—

1. An inkstand comprising a reservoir, an inclosing head, a dip-well, a cylinder mounted on the head, and a piston arranged in the cylinder, having an air-passage whereby when the piston is down ink will be supplied to the dip-well and maintained therein and the air-passage mechanically closed, substantially as described.

2. An inkstand comprising a reservoir, an inclosing head having a dip-well with a tube reaching toward the bottom of the reservoir, a cylinder mounted upon the head and provided with a piston or plunger, the cylinder having an opening and the plunger having a conical seat fitting the opening, and a vent extending through the plunger, substantially as described.

3. In an inkstand, the combination with a reservoir, of an inclosing head having integral therewith a dip-well and cylinder, and a plunger fitting the cylinder and provided with a vent, substantially as described.

4. In an inkstand, the combination with a reservoir and head having a dip-well and cylinder and provided with a conical opening, of a plunger having a conical projection fitting the opening, and an air-vent above the projection extending to the upper end of the plunger, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN THOMSON.

Witnesses:
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