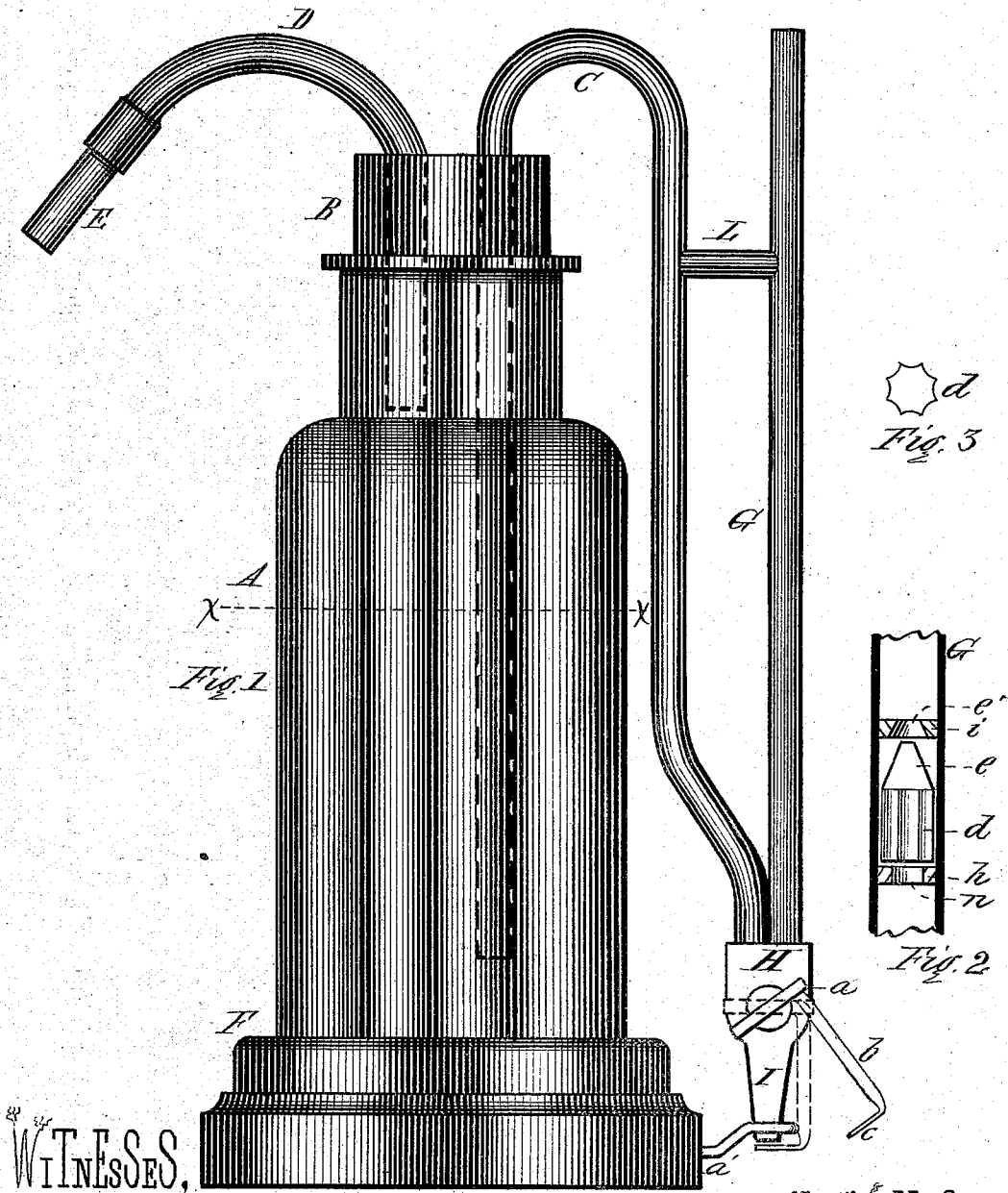


M. C. STEBBINS.

Inkstand-Fillers.

No. 136,186.

Patented Feb. 25, 1873.



WITNESSES,
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UNITED STATES PATENT OFFICE.

MILAN C. STEBBINS, OF SPRINGFIELD, MASSACHUSETTS.

IMPROVEMENT IN INKSTAND-FILLERS.

Specification forming part of Letters Patent No. 136,186, dated February 25, 1873.

To all whom it may concern:

Be it known that I, MILAN C. STEBBINS, of Springfield, in the county of Hampden and State of Massachusetts, have invented a new and useful Inkstand-Filler; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making a part of this specification, and to the letters of reference marked thereon, in which—

Figure 1 is a side view of my invention. Fig. 2 is a vertical section through that part of the valve-pipe which contains the valve, and Fig. 3 is a plan view of the valve.

My invention relates to a device to be used for filling inkstands with ink; and it consists of a suitable jar or vessel, in the mouth or opening of which is fitted a stopper, preferably of rubber, through which two holes are made, into one of which is inserted a short tube, flexible if desirable, extending into or just through the stopper. Into the other hole is inserted one arm of a bent tube, which extends down into the jar nearly to the bottom, the other arm extending downward outside the jar; and to the lower end of this arm is attached another straight tube of any desired length. Into the lower part of this straight tube is placed a cylindrical valve, grooved longitudinally in its periphery, and cone-shaped at the top, said valve resting upon a perforated ring firmly secured within the tube, and with another ring secured above the valve, having a corresponding cone-shaped perforation therein. Both tubes, outside the jar, terminate in a common chamber, in which is a valve or ordinary stop-cock, and the chamber terminates just below the stop-cock in a nozzle, having a small single outlet. A small wire is attached to the thumb-piece of the stop-cock, to the lower end of which wire is attached a small disk or plate, placed at nearly right angles to the wire, which disk or plate, when the stop-cock is closed, fits up against the end of the nozzle tightly; but which, when the stop-cock is open, is moved away from the opening in the operation of turning the thumb-piece of the stop-cock.

That others skilled in the art may be able to make and use my invention, I will proceed to describe its construction and operation.

In the drawing, A represents the jar or ves-

sel, having a stopper, B, nicely fitted air-tight, into its mouth or opening; and through said stopper are made two holes, into one of which is inserted a short tube, D, having a glass or similar mouth piece, E, if desirable, said tube extending only into the stopper B, or just through it. Into the other hole is inserted one arm of the bent tube C, which arm extends nearly to the bottom of the jar inside, as shown in dotted lines in Fig. 1. To the lower end of the outer arm of the tube C is attached a reservoir, H, having also attached thereto the lower end of the tube G; and these tubes C and G communicate with each other through the reservoir H. Within said reservoir is located an ordinary stop-cock or valve, which may be opened or closed by turning the thumb-piece *a*; and the reservoir terminates below in a small nozzle or tube I. To the thumb-piece *a* is attached a wire, *b*, provided with a disk, *c*, at its lower end; and the nozzle I may be held firm by a brace, *a'*, secured to the wooden foot F, which has a recess made in its top, into which the jar is snugly fitted. This foot prevents the jar from being too easily upset by accident, and also gives the required length of the outer arm of the tube C, and still brings the lower end of the nozzle I above the bottom of the device, so that it may conveniently rest upon the desk or table while in use. Within the tube G, and a short distance above the reservoir H, is placed a valve, which consists of a cylindrical plug, which is grooved longitudinally at *d*, and is made cone-shaped at the top, as shown at *e*; and this plug is made of any light material that it may be floated easily by the liquid, and rests upon a ring, *h*, which is firmly secured within the tube, and is perforated at *n*. A short distance above the plug *d* is a second ring, *i*, having a conical perforation, *e'*, therein, corresponding in shape to the upper part of the plug at *e*, so that when the plug is floated upward its cone-shaped top fits well into the cone-shaped seat or perforation *e'*; and the upper end of the tube G may be stayed to the bent tube C by the brace L.

The operation of my invention is as follows: The jar being filled with ink to any desired height—say, to the dotted line *x*—and the stop-cock *a* being closed, the operator applies the end of the tube D or the mouth-piece E to his mouth and blows into the jar, giving a short,

quick puff, which compresses the air in the upper part of the jar and forces the ink out through the tube C into the reservoir H, and thence up into the tube G against the plug *d*, the air in the tube C being forced along by the liquid and caused to pass by the plug through the grooves therein. As the liquid passes up the tube G it floats the plug *d* up said tube, driving its cone-shaped top up into the aperture or seat *e'* and closing it, thus preventing the ink from rising any further in the tube G. The tube C, being thus filled with the liquid, then operates as a siphon; the outer arm with the nozzle being longer than the arm within the jar, and the nozzle I being held over the opening of an inkstand, the stop-cock is opened by turning the thumb-piece *a*, thereby moving the cut-off or disk *c* away from the end of the nozzle, and the ink will then run from the jar out through the tube C and nozzle I until the inkstand is filled. The thumb-piece *a* is then turned, closing the stop-cock and bringing the cut-off *c* down under the end of the nozzle I, tightly closing it and preventing any drops that may adhere to the end of the nozzle from dropping upon any books or papers that might happen to be beneath.

For use in schools, and where many ink-wells are to be filled, this is an admirable device, for after one has been filled the stop-cock is closed and the jar carried to the next one, and by simply opening the stop-cock *a* the ink will run as before, and so on until all are filled, the ink remaining in the tube C ready to run whenever the stop-cock is opened.

The jar may be more conveniently carried by a handle secured to the neck of the jar or other convenient place, and when all the wells have been filled the stop-cock is closed, and the operator blows a slight puff into the upper end of the tube G, and the ink is thereby forced back into the jar.

Instead of the disk *c* a small piece of sponge might be attached to the lower end of the wire *b*, which, when moved beneath the nozzle, would absorb any drops of ink adhering thereto; but as a sponge might require too frequent cleaning, and might, when saturated with ink, be liable to throw it off if moved quickly, I prefer to use the cut-off or disk *c*.

In practice the arm of the tube C, which is outside the jar, might be made straight, and the tube G might be placed in close contact with it and secured by soldering or otherwise.

With this device all the inkstands of a large school-room can be filled very rapidly; and, as in most school-rooms, all the ink-wells are made permanent in the desks, the jar may be carried around the room and all the wells filled without the least drop of ink dropping from the filler.

When the wells are filled in the ordinary manner this dropping of ink is a constant source of annoyance, often seriously soiling valuable books and papers.

Any other simple arrangement of check-valve in the tube G to prevent the ink from being forced up and out said tube would answer the purpose equally well, as the function of said valve is to permit the escape of air from the tube C, and yet prevent the ink from being forced out the tube G.

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

An inkstand-filler, consisting of the jar A, tubes C and D, the tube G, having the check-valve *d* therein or its equivalent, and the nozzle I with its stop-cock *a*, all substantially as set forth.

MILAN C. STEBBINS.

Witnesses:

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C. EUGENE BUCKLAND.