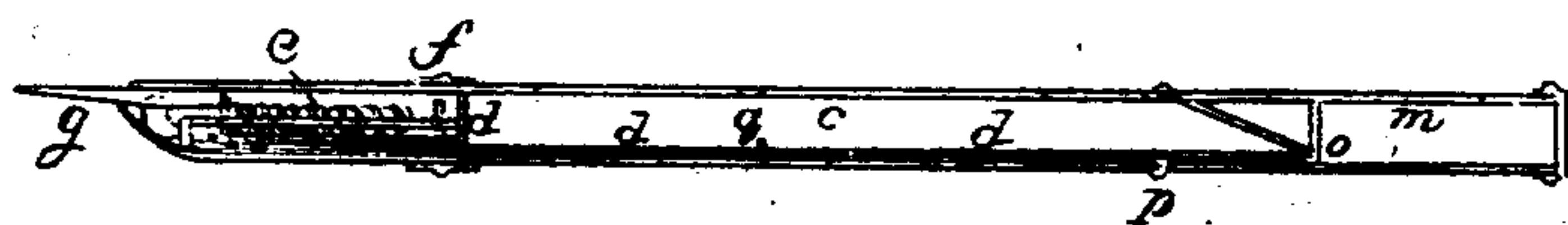
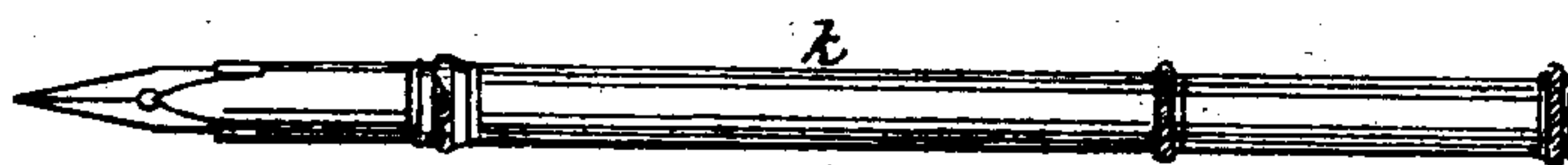
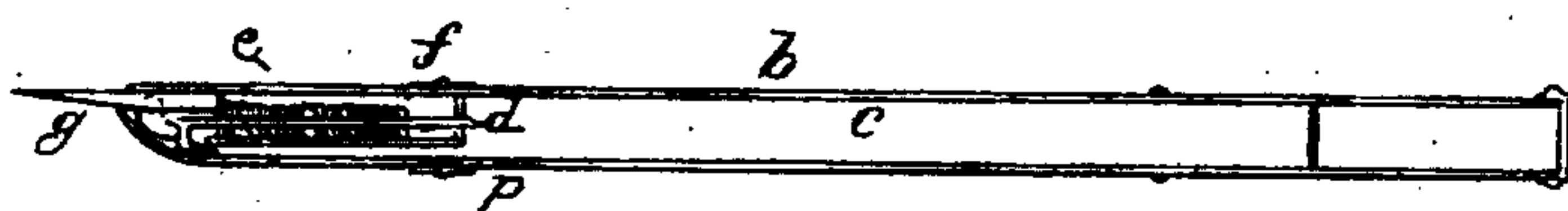
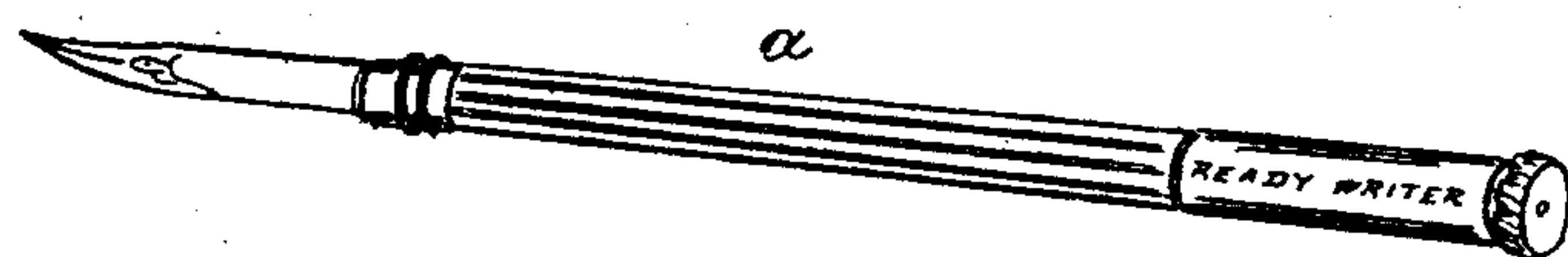


*C. Cleveland,*  
*Fountain Pen.*

*No 8977.*

*Patented June 1. 1852.*



# UNITED STATES PATENT OFFICE.

CHARLES CLEVELAND, OF MIDDLEBURY, VERMONT.

## IMPROVEMENT IN FOUNTAIN PEN-HOLDERS

Specification forming part of Letters Patent No. 8,977, dated June 1, 1852.

*To all whom it may concern:*

Be it known that I, CHARLES CLEVELAND, of Middlebury, in the State of Vermont, have invented a new and useful Improvement in the Self-Supplying or Fountain Pen, being a method of supplying ink to a pen when in use from a fountain or cistern in the pen-holder, whereby the flow of ink is regulated by the hand which holds the pen and in the act of writing, so as to keep the pen constantly supplied with ink while in use and stopping it at pleasure.

By this improvement the inconvenience and interruption of dipping the pen in ink are avoided, and the pen, with a supply of ink in the fountain, can be kept in the pocket ready for use, occupying no more space than the ordinary pen and holder. The supply of ink is contained in the upper portion of the holder, which is hollow, and which screws onto the other or lower part next the pen. This lower part may be conveniently made about an inch in length and is hollow. Within it is a spiral spring coiled around a small rod or wire on a seat or bed. At each end of this seat or bed, and forming the two ends of it, are flanges or projections filling the hollow of the tube, except a small portion of it on one side, leaving space sufficient for the ink to descend from the fountain to the pen. This small rod or wire passes through a hole in the lower flange or projection into a corresponding opening in the upper flange and is tapered or pointed, and forms with said opening a conical valve for the admission of air. The ink passes down by the side of the seat or bed before mentioned from the fountain and meets at the bottom a flange on the other side of it, through which there is a small opening. This opening is closed by a branch from the rod before mentioned, tapered or pointed in like manner, and forming a conical valve which regulates the flow of ink to the pen. The rod or wire aforesaid, about one-third the distance from the top, is perforated by a small hole, into which there passes a pin from the outside, where it is fastened to a slide. Around the rod or wire below the pin is a spring, a spiral one being most convenient. The slide, to move readily, should have as little friction upon the holder as may be. By moving the slide, which while writing is under the fingers, downward the rod or valve is pressed down, and the valve being

thus opened the admission of air allows the ink to flow from the fountain, and the lower valve being opened by the same act the ink flows out into the pen along a leader formed of that end of the rod. The pen being thus filled, the slide is permitted to return to its place, forced back by the spring, and this closes the valves and stops the flow of ink. As ink is required this is repeated, and all without moving the hand from the pen.

This pen-holder or fountain may also be constructed without the spring; but in this case the valves must be closed as well as opened by moving a slide or button attached to the valves into the hand. In this case, however, the pen may be carried as safely in the pocket when the cap is on. It may likewise be constructed by making the valve-rods separate, connecting each of them with a slide and with or without the spring.

The construction will be more fully understood by reference to the drawing hereto annexed, which forms a part of this specification, upon which—

*a* is a pen and holder complete. *b* is a transverse section of it.

*c* is the barrel or fountain containing the ink; *d*, the rod and conical valves; *e*, the spring; *f*, the slide; *g*, the pen; *h*, the seat or bed; *i i i i*, the flanges; *p p*, screws by which the fountain is opened for filling with ink.

*k* is another form of pen and holder complete. *l* is a transverse section of it. In this form *c* is the barrel or fountain. The rod *d* extends through it and enters an opening at *o*, forming a conical valve for the admission of air, the rod or wire being directed to its place by a funnel with an opening at the top. The same rod forms the valve for the admission of ink.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination of the valves in a fountain-pen for the admission of air and regulating the flow of ink with the slide or button and with the spring and slide, in the manner above described, or in any other substantially the same.

New York, February 2, 1852.

CHARLES CLEVELAND.

Witnesses:

GEO. C. GODDARD,

LEONARD W. GODDARD.