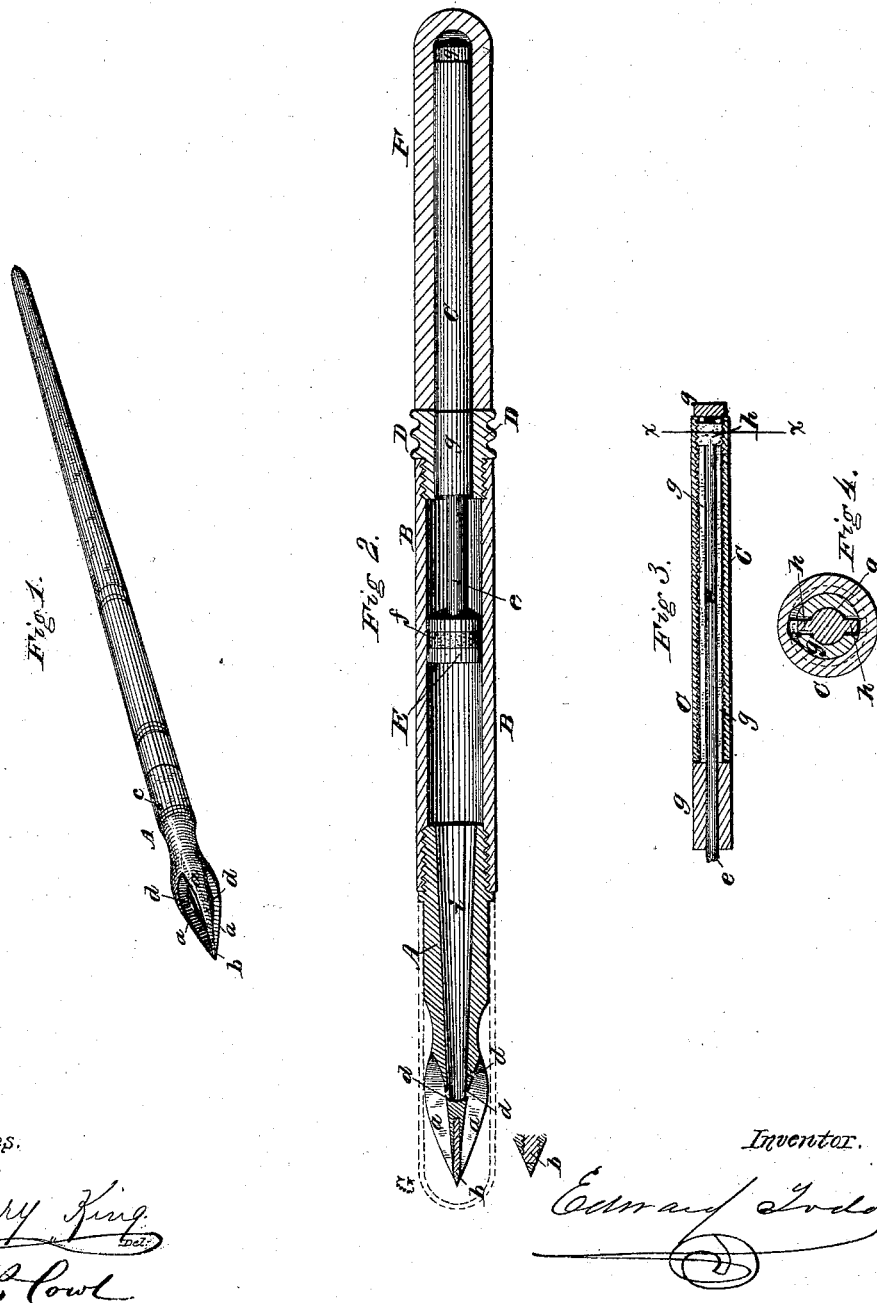


E. TODD.  
Stylographic Fountain-Pen.

No. 218,905.

Patented Aug. 26, 1879.



Witnesses.

Harry King  
D. P. Low

Inventor.

Edmund Todd

# UNITED STATES PATENT OFFICE.

EDWARD TODD, OF MADISON, NEW JERSEY.

## IMPROVEMENT IN STYLOGRAPHIC FOUNTAIN-PENS.

Specification forming part of Letters Patent No. **218,905**, dated August 26, 1879; application filed July 23, 1879.

*To all whom it may concern:*

Be it known that I, EDWARD TODD, of Madison, in the county of Morris and State of New Jersey, have invented certain new and useful Improvements in Stylographic Fountain-Pens; 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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

My invention relates to stylographic fountain-pens; and consists in so grooving a bulging head as to provide several ridges converging to a common point, the head, neck, and body of the pen being made hollow for the purpose of receiving and storing away writing-fluid; and it further consists in the construction and adaptation to its surrounding parts of a suction mechanism, whereby the cistern is filled with writing-fluid, which is subsequently fed out through the head to the pen-point, when desired; and it still further consists in a peculiar construction of the point, whereby the same is protected from injury, in a manner hereinafter to be more fully set forth.

In the drawings, Figure 1 represents a perspective view of my improved fountain-dip pen. Fig. 2 represents enlarged vertical longitudinal section of my invention, showing the suction mechanism applied thereto. Fig. 3 represents an enlarged vertical longitudinal section of a portion of the suction mechanism. Fig. 4 represents a vertical transverse section of a portion of the suction mechanism cut through line *x x*, Fig. 3.

Into the front end of body B, I screw a head, A. This head is provided with an internal channel. Into the outer surface of the bulging part of the head I cut several grooves in such a manner as to form ridges *a a*, which converge to a common point. These grooves are cut sufficiently deep to reach the recess in the interior of the head.

In constructing a dip fountain-pen the apertures *d*, connecting the outer groove with the inner recess, are much larger than is the case in a reservoir fountain-pen.

In the dip fountain-pen an air-vent, *e*, is formed, running through to the inner channel, for the purpose of facilitating the flow of ink.

Into the point of the head I firmly screw a

piece of gold wire, *b*, upon the outer end of which is "sweated" an iridium point, finished for use as required.

The body B is hollow, and forms a reservoir, which, in connection with the channel in the head A, receives the writing-fluid when drawn up through perforations *d* by means of suction-head E. This head is mounted upon rod *e*, which has fixed upon its rear end protruding male screw-lugs *h*. These screw-lugs engage in female threads formed in the inside of the adjusting-sleeve C, and ride backward and forward in a straight line in guide-grooves formed in an inner sleeve, *g*, which sleeve is rigidly attached to nut D, which is firmly secured into the rear end of the body B. The suction-head E may be provided with an annular groove, in which is placed any desired packing.

Surrounding the sleeve C, in such a manner as to operate the suction mechanism when rotated, and at the same time admit of its being readily detached, is an outer sleeve, F.

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

1. In a stylographic fountain-pen, the head A, provided with passage-way *i*, perforations *d*, ridges *a*, and reservoir-body B, constructed and operating substantially as described.

2. In a stylographic fountain-pen, the reservoir-body B and head A, provided with passage-way *i*, perforations *d*, and ridges *a*, in combination with a suction mechanism, substantially as described, whereby the writing-fluid is first inducted into the reservoir, and then gradually fed out through perforations in the head to the point of the pen, substantially in the manner set forth.

3. In a stylographic fountain-pen, the combination of the reservoir-body B, the suction and force head E, shaft *e*, the male screw-lugs *h*, inner rigid sleeve, *g*, provided with straight grooves, in which the lugs travel, and the adjusting-sleeve *c*, upon the inner wall of which are provided female threads, all operating as and for the purposes set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 22d day of July, 1879.

EDWARD TODD.

Witnesses:

JAMES E. WAUGH,  
HARRY KING,