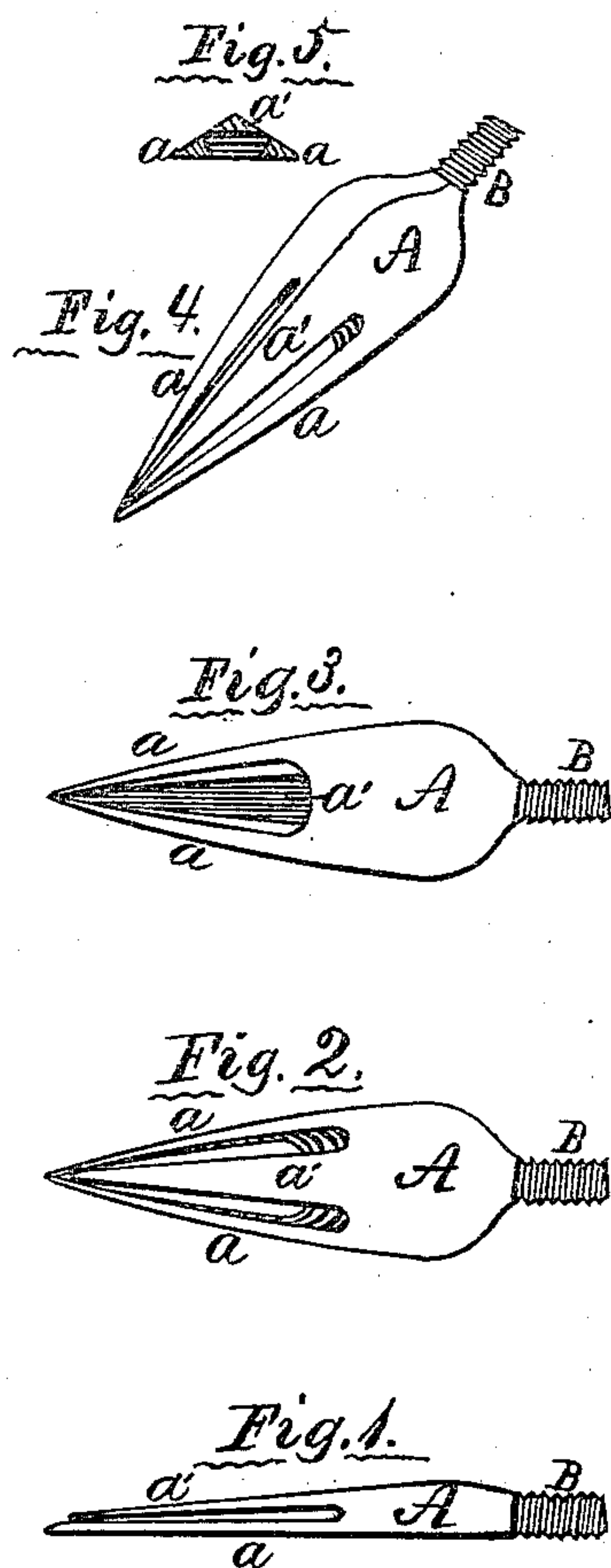


J. S. DUNLAP.

Pens.

No. 148,601.

Patented March 17, 1874.



Witnesses:

A. W. Callum

J. F. Knight

Inventor:

John S. Dunlap

by W. B. Richards,

att'y.

UNITED STATES PATENT OFFICE.

JOHN S. DUNLAP, OF PEORIA, ILLINOIS.

IMPROVEMENT IN PENS.

Specification forming part of Letters Patent No. **148,601**, dated March 17, 1874; application filed February 11, 1874.

To all whom it may concern:

Be it known that I, JOHN S. DUNLAP, of Peoria, county of Peoria and State of Illinois, have invented certain Improvements in Pens, of which the following is a specification:

The nature of my invention relates to improvements in ink-retaining pens; and the invention consists in the peculiar construction and arrangement of the parts forming the blades or points for holding or retaining the ink, and for transferring it to the paper to be written upon, all as hereinafter fully described.

In the accompanying drawing, Figure 1 is a side elevation of a pen embodying my invention. Fig. 2 is a top-plan view. Fig. 3 is a bottom plan, (seen from the bottom upward.) Fig. 4 is a perspective view, and Fig. 5 is a section of Fig. 2 on the line *x x*.

Referring to the parts by letters, letter A represents the heel of the pen, which may be triangular-shaped in its cross-section, as shown in the drawings, or any other desirable shape, and provided with a rear projection, B, which may be threaded for insertion in the pen-holder, or may have any well-known form for the same purpose. *a a* represent the side pieces or blades, formed by continuations or extended points from the heel A, separated considerably at their rear ends, and brought together at their slightly-rounded points, as shown plainly at Figs. 2, 3, and 4 of the drawings. These points or blades *a* may be made light enough to be flexible, or heavier, as de-

sired. *a'* represents the upper blade, formed, as shown in the drawings, by a projection forward from the heel A, and above the points or blades *a a*. This blade *a'* may be formed from the metal composing the heel, or it may be attached thereto in any desired manner; and its forward end may extend as far outward as the blades *a a*, or it may be somewhat shorter.

This construction and arrangement of the blades *a a a'* is such (as will be evident to any person skilled in the art to which it pertains) as to hold a considerable quantity of ink between the blades, it being retained therein by the cohesion to each other of the particles of the fluid mass, arising from their mutual attraction for each other, and by the adhesion of the same to the adjacent sides of the blades from capillary attraction. The nibs *a a* are such, also, that the depth of the lines of writing executed therewith will depend on the amount of their separation, the ink being retained and discharged from between them.

I claim—

The herein-described pen, consisting of the heel-piece A, side blades *a a*, and central blade *a'*, substantially as and for the purpose set forth.

JOHN S. DUNLAP.

Witnesses:

SAMUEL P. DUNLAP,
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