

J. S. PURDY.
Fountain Pen.

No. 232,545.

Patented Sept. 21, 1880.

Fig. 1.

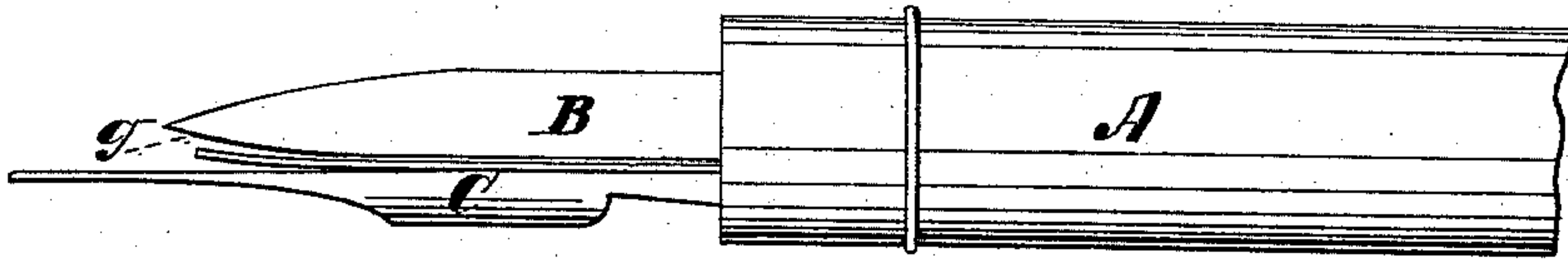


Fig. 2.

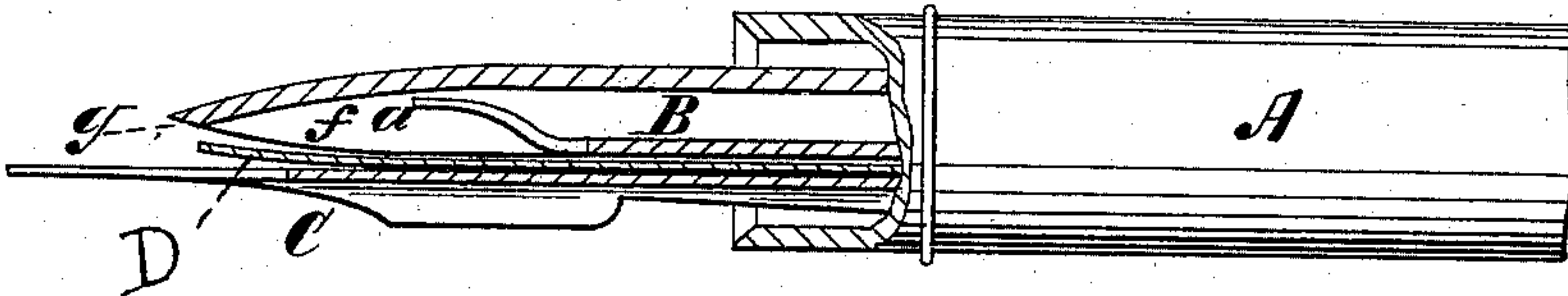


Fig. 3.

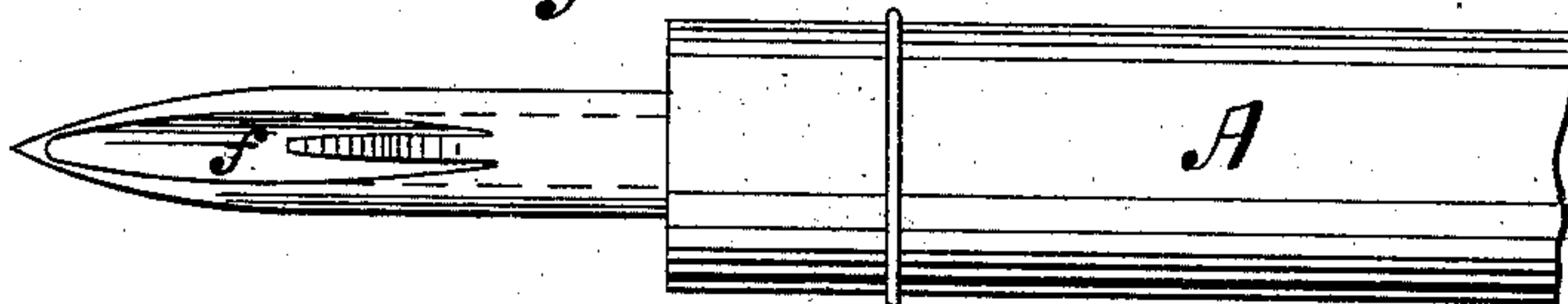


Fig. 4.

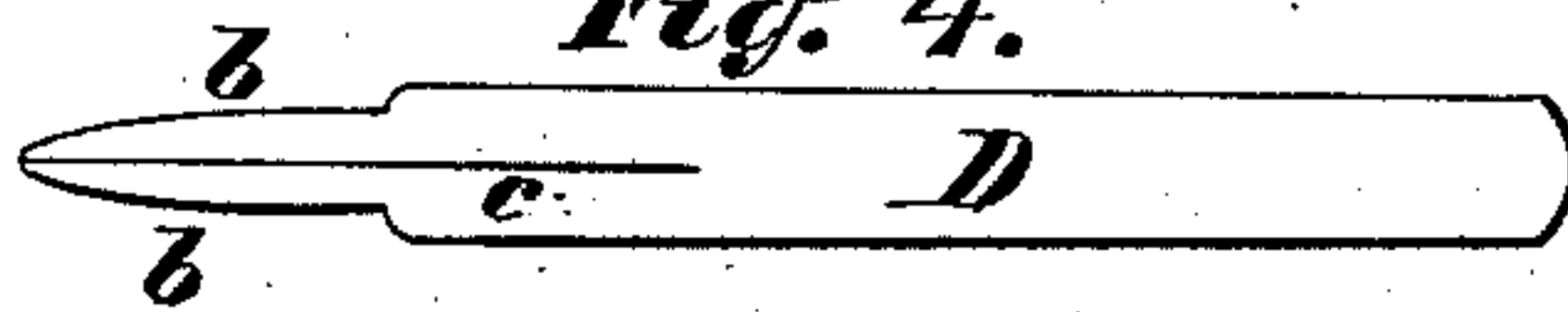


Fig. 5.



WITNESSES.

H. F. Parker.
Chas. H. Doran

INVENTOR.

John S. Purdy

PER James A. Whitney, Atty.

UNITED STATES PATENT OFFICE.

JOHN S. PURDY, OF BROOKLYN, NEW YORK.

FOUNTAIN-PEN.

SPECIFICATION forming part of Letters Patent No. 232,545, dated September 21, 1880.

Application filed February 21, 1880.

To all whom it may concern:

Be it known that I, JOHN S. PURDY, of Brooklyn, in the county of Kings and State of New York, have invented certain Improvements in Fountain-Pens, of which the following is a specification.

This invention relates to that class of pens in which the ink is supplied to the pen from a fountain or reservoir formed in the handle or holder thereof; and said invention comprises certain novel combinations of parts whereby the gumming of the ink during its passage to the pen is guarded against, and whereby, moreover, provision is made for supplying ink to the pen however widely the nibs thereof may be spread apart in the making of a heavy stroke, a fountain-pen possessed of great practical superiority over those hitherto in use being thereby provided.

Figure 1 is a side view of a fountain-pen embracing my said invention. Fig. 2 is a longitudinal sectional view of the same; and Figs. 3, 4, and 5 are detailed views of certain parts of the said pen detached from each other, the better to show their form and construction.

A is the holder, within which is provided the fountain or reservoir, from which ink passes to the conduit B and through the outlet *a*, by which the ink passes to the pen, as hereinafter explained.

Inasmuch as the holder A, containing the fountain, as aforesaid, and conduit B may be of any ordinary or suitable description, they need no specific description here.

C is the pen, of any ordinary type and character, and inserted in a suitable holding-slit provided in the adjacent end of the holder A.

Between the pen C and the conduit B is an elastic metal plate, D, the form of which is more fully shown in Fig. 4, and which is secured at its inner end to the handle A. The outer end of said plate D is made of the tapering form represented at *b* in Fig. 4 aforesaid, and has in it a longitudinal slit, *e*. Said outer end of said plate D is, moreover, curved slightly upward, as represented in Figs. 1 and 2, so as to very nearly cover the under side of the cavity *f* in the outermost portion of the conduit B, there being, however, in the normal

condition of said plate a space, *g*, between the outer extremity of the plate D and the adjacent outer end of the cavity *f*.

It will be observed that although the plate D practically closes the under side of the aforesaid cavity *f*, yet it rests upon the upper surface of the pen C in such a manner that the upward movement of the pen under the stress or pressure of writing will force the plate D upward, and will consequently give to the tapering portion or tongue *b* a vibrating up-and-down movement, so to speak, as the pressure upon the point of the pen varies. It is this operation of the plate with reference to the cavity *f* to the conduit B and to the pen C that gives utility and value to the operation of my said invention.

Inasmuch as the ink, if undisturbed, or nearly so, at the opening *g*, would clog or gum, and thereby interfere with the flow to the pen, it is by the constant movement of the aforesaid tapering portion or tongue *b* of the plate D continuously urged or pumped downward upon the back of the pen. But this is not all. The outer portion aforesaid of the plate bearing upon the upper part of the nib or split portion of the pen, and vibrating as hereinbefore explained, exerts a greater action as the pen is violently used, so that when the pen is used with a hard pressure to produce a broad mark the flow of ink from the pen is proportionately increased, and a sufficient quantity of ink is supplied to the pen, no matter how widely apart the two lateral portions of its nib are spread in making a broad stroke.

The slit *e* in the outermost end of the plate D tends to greatly increase the elasticity of the latter, and is found in practice to very much increase the sufficiency during the operation of the pen, as hereinbefore explained.

What I claim as my invention is—

1. In a fountain-pen, the plate D, placed between the pen C and the conduit B, the parts being so arranged that the vibratory motion of the pen communicates a like movement to the plate D to urge or pump the ink from the conduit to the back of the pen, substantially as and for the purpose herein set forth.

2. The combination, in a fountain-pen, of the following elements, namely: a handle, A, con-

5 taining a fountain for the ink, a conduit, B, having a cavity, *f*, and arranged to conduct the ink from the fountain toward the pen, a pen, C, placed below or underneath the conduit B, and an elastic plate, D, constructed with the slit *c* and tongue *b*, and interposed between the cavity *f* of the conduit and the

back of the pen, all substantially as and for the purpose herein set forth.

JOHN S. PURDY.

Witnesses:

JAMES A. WHITNEY,
CHAS. H. T. DOXAT.