## G. W. BRYDEN. FOUNTAIN PEN.

FOUNTAIN PEN. No. 538,499. Patented Apr. 30, 1895. FIG- 1. FIG 9 F7G 4. FIG 7 gr gr FIG. 8.

> WITNESSES. A.D. Hamson. M. Maris.

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## FOUNTAIN-PEN.

SPECIFICATION forming part of Letters Patent No. 538,499, dated April 30, 1895. Application filed March 19, 1894. Serial No. 504,126. (No model.)

To all whom it may concern:

Be it known that I, GEORGE WILLIAM BRY-DEN, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain 5 new and useful Improvements in Fountain-Pens, of which the following is a specification.

This invention relates to an improvement in fountain pens, the principal object being to simplify the construction of a pen of this char-10 acter without detracting from its efficiency.

To the above end the invention may be said to consist in certain novel features of construction and combinations of parts recited in the claims appended and specifically described in 15 the specification which follows.

The accompanying drawings form part of the specification, and they illustrate an em-

bodiment of the invention.

Figure 1 shows a longitudinal section of the 20 pen. Fig. 2 shows a cross-section on line 2 2 of Fig 1. Fig. 3 shows the pen-point and tongue in the flat. Fig. 4 shows a longitudinal section of the pen-point and tongue. Fig. 5 shows a pen-point embodying the invention 25 fitted to a hollow holder, such as commonly used with an ordinary dip-pen. Fig. 6 shows a sectional view of a modified form of penpoint fitted to a holder. Fig. 7 shows a plan view of this modified form of pen-point in the 30 flat. Fig. 8 shows a longitudinal section of the pen-point detached. Fig. 9 shows a side edge view of the same completed.

The body of the pen constituting the reservoir may be made in one or more parts. It 35 is shown in Figs. 1 and 2 as made in two parts, a, and b, the latter screwing into the former and itself being fitted with a screw-threaded

plug, c.

To fill the reservoir the member, b, is screwed 40 out and the member, a, charged and then the part, b, is replaced. The screw-plug, c, is flattened on one side, as shown at c' in Fig. 2, and is split as is common in plugs of this kind to adapt it for securely holding in the pen-45 point. The latter comprises a part, d, of shape and form of an ordinary pen-point, with a divided nib and an enlarged opening, d', at the base of the dividing split; and a tongue,  $d^2$ , connected with the part, d, by a reduced 50 neck,  $d^3$ . These parts are preferably all formed in one piece, as shown, and the tongue,  $d^2$ , extends along the under side of the part, d, I ing and using the same, though without at-

to a point between the extremity thereof and the opening, d', the neck,  $d^3$ , being bent around

to thus dispose the tongue.

When the parts of the pen are assembled the flat tongue,  $d^2$ , lies against the flattened side, c', of the plug, c, the part, d, lies against the inner wall of the body member, b, and the doubled neck,  $d^3$ , projects into the reservoir. 60 A duct or passage, e, exists between the tongue,  $d^2$ , and the pen-point, d, and in action, air enters the opening, d', in the pen, d, and flows up this passage, and the ink feeds to the pen in fine streams along the edges of the tongue 65 at each side of the passage, e, as indicated at e' in Fig. 2. Thus a single passage serves both as an air-duct and an ink-duct.

By reason of the feed taking place in fine streams along the edges of the tongue, blot- 70 ting of the pen as the supply of ink in its reservoir gives out, is effectually guarded against. Should a solid column of ink flow down the passage, e, such as might form a blot, this column closes the air-duct and the ink is ar- 75

rested before a blot can be made.

A pen-point of the construction shown may be employed with a hollow holder such as commonly employed with an ordinary dip-pen, and such an article thus converted into a foun- 80 tain-pen.

In Fig. 5 the letter, f, designates a hollow pen-holder of the well-known form, and, f', the split-plug which screws into the holder, and secures the pen-point,  $f^2$ , which is of the 85 same form as before described, its inner end projecting into the holder. The latter may be readily filled with writing fluid by removing the plug, f'. The action is the same as described with reference to the two-part holder. 90

In the modified form shown in Figs. 6, 7, 8, and 9, the pen-point, g, is formed at its base on either side of the neck, g', with points,  $g^2$ , designed to bear against the wall of the reservoir, h. (See Fig. 6.) The object of this 95 provision is to prevent gumming of ink remaining in the pen-point when the pen is not in use, the said points,  $g^2$ , inducing the flowing of ink back into the reservoir when the pen is inverted. The feeding tongue,  $g^3$ , is 100 formed beyond the neck, g', as before.

Having thus explained the nature of the invention and described a way of constructtempting to set forth all of the forms in which it may be made or all of the modes of its use, it is declared that what is claimed is—

1. A pen-point for fountain pens comprising a body portion of the usual form being
substantially semi-circular in cross-section
and pointed and split at one end to form nibs
with an opening at the base of the split; a
narrow neck extending back from the middle
of the base of the body-portion and bent back
under itself; and a tongue extending from
the neck along the inner side of the body-portion as far as the opening at the base of the
nibs, said tongue being partially inclosed by
the body-portion whereby a duct is formed
for the ink to flow through from its point of
entrance at the sides of the bent-over neck to
the opening at the base of the nibs.

2. A fountain pen comprising in its construction a body constituting a reservoir, a plug in one end of said body and flattened on one side, and a pen-point and tongue formed

in one piece, the tongue extending along the inner side of the pen-point, and the two inserted between the plug and the wall of the 25 body and extending into the reservoir.

3. A pen-point for fountain-pens consisting of a body portion substantially semi-circular in cross-section and formed with points standing out from its back end, a tongue extending 30 along the inner side of said body portion and partially inclosed by it, and a bend or neck connecting the tongue and body portion and extending beyond the back end of the latter between the points thereat, substantially as 35 described.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 7th day of March, A. D. 1894.

GEORGE WILLIAM BRYDEN.

Witnesses:

ARTHUR W. CROSSLEY, F. P. DAVIS.