

T. TANIMURA.
 FOUNTAIN PEN.
 APPLICATION FILED JUNE 26, 1914.

1,180,887.

Patented Apr. 25, 1916.

Fig. 1.

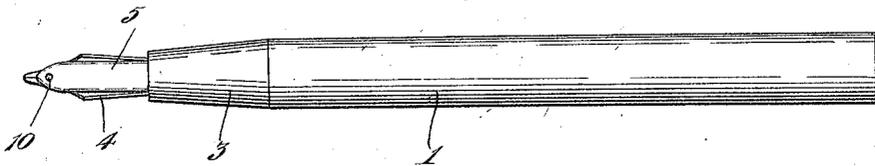


Fig. 2.

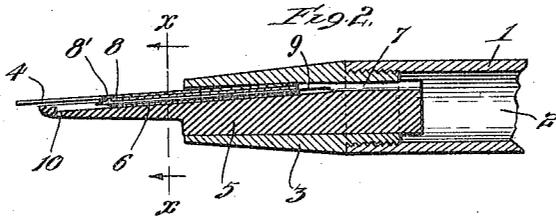


Fig. 3.

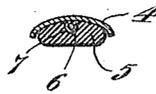


Fig. 5.

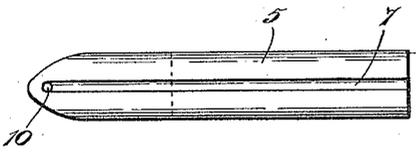


Fig. 4.

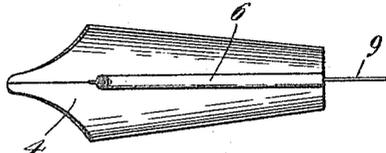
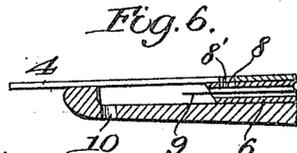


Fig. 6.



Witnesses:
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UNITED STATES PATENT OFFICE.

THOMAS TANIMURA, OF ROCK SPRINGS, WYOMING.

FOUNTAIN-PEN.

1,180,887.

Specification of Letters Patent. Patented Apr. 25, 1916.

Application filed June 26, 1914. Serial No. 847,441.

To all whom it may concern:

Be it known that I, THOMAS TANIMURA, a citizen of the United States, and a resident of the city of Rock Springs, county of Sweetwater, and State of Wyoming, have invented certain new and useful Improvements in Fountain-Pens, of which the following is a specification.

My invention relates to fountain pens, and more specifically to the ink feeding portion thereof, and has for its object the production of a fountain pen which will be of improved construction and efficient in operation.

Other objects will appear hereinafter.

The invention consists in the combinations and arrangements of parts hereinafter described and claimed.

The invention will be best understood by reference to the accompanying drawing forming a part of this specification, and in which,

Figure 1 is a side elevation of a fountain pen embodying my invention, Fig. 2 is an enlarged longitudinal section of the feed end of the fountain pen, Fig. 3 is a section taken on line $x-x$ of Fig. 2, Fig. 4 is a bottom plan view of the pen point removed, Fig. 5 is a top plan view of the plug member included in the construction, and Fig. 6 is an enlarged longitudinal section of the pen point and adjacent parts.

The preferred form of construction as illustrated in the drawing comprises a cylindrical barrel 1 within which is formed the ink reservoir 2 of the fountain pen. At the lower end of the barrel 1 is provided an end piece 3 in threaded connection therewith, as shown, so as to permit of detachment of the member 3, when desired. Arranged at the outer end of the member 3 is the pen point 4 held in position by the plug 5 which snugly fits the member 3, being held in position therein by friction.

Provided centrally on the under side of the pen point 4 is a longitudinally extending pipe 6 secured thereto by soldering, the adjacent side of the plug member 5 being provided with a longitudinally extending groove 7 which accommodates said pipe 6. The pipe 6 is open at its respective ends, the upper end thereof communicating through the medium of the upper end of groove 7 with the ink reservoir 2. Provided adjacent the lower or outer end of the pipe 6 is a lateral opening 8 which communicates with

the usual opening 8' provided at the upper end of the central slit provided in the outer end of a conventional pen point.

Arranged in the pipe 6 is an elongated slender member 9 formed preferably of hard rubber, or of the same material from which the members 1, 3 and 5 of the fountain pen are formed, the member 9 fitting loosely within the passage through said pipe, the respective ends of said member protruding from the ends of said pipe, as clearly shown in Figs. 2 and 4. Provided at the lower end of the plug member 5 is a vent opening 10.

With a construction as set forth, the ink in flowing from the reservoir 2 passes down through the upper end of groove 7, entering the upper end of pipe 6 through which the same passes, being discharged through the lower end of said pipe into engagement with the under side of the pen point for application to the surface with which the pen point is brought in contact in the writing operation, as is readily understood. Through the provision of the member 9 within the pipe 6, the flow of ink through said pipe will be retarded to such an extent as to prevent excessive accumulation of ink at the pen point or excessive feeding of ink to the pen point such as is the case with fountain pens now generally in use. This accumulation of ink at the pen point occurs when the writer pauses for a moment, the accumulated ink, upon the writer resuming his writing, resulting in an excessive discharge of ink upon the paper which is very objectionable. With the present construction, this accumulation or excessive feeding is obviated and a steady uniform flow effected. The provision of the vent openings 8 and 10 facilitates the flow of the ink to the pen point from the lower end of the pipe 6, the combined result of the provision of the member 9 and such vent openings being uniform, steady, non-excessive flowing of ink to the pen point.

While I have illustrated and described the preferred form of construction for carrying my invention into effect, this is capable of variation and modification without departing from the spirit of the invention. I, therefore, do not wish to be limited to the precise details of construction set forth, but desire to avail myself of such variations and modifications as come within the scope of the appended claims.

Having described my invention what I claim as new and desire to secure by Letters Patent is:

5 1. In a fountain pen, the combination with an ink reservoir and a pen point, of an ink outlet pipe secured to the under side of said pen point establishing communication between said reservoir and said pen point; a
10 plug member arranged at the lower end of said reservoir and at the under side of said pen point serving to hold the latter in position, said plug member having a longitudinally extending groove to accommodate said pipe, substantially as described.

15 2. In a fountain pen, the combination with an ink reservoir and a pen point, of an ink outlet pipe secured to the under side of said

pen point establishing communication between said reservoir and said pen point; a plug member arranged at the lower end of said reservoir and at the under side of said pen point serving to hold the latter in position, said plug member having a longitudinally extending groove to accommodate said pipe and a vent opening at its lower end communicating with the corresponding end of said groove, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

THOMAS TANIMURA.

Witnesses:

C. L. AGNEW,
H. E. RENNIE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."