

(No Model.)

D. BEAUMEL.
FOUNTAIN PEN.

No. 491,795.

Patented Feb. 14, 1893.

Fig. 1,

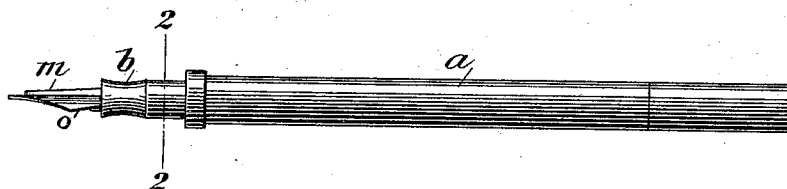


Fig. 2,

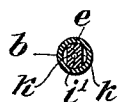


Fig. 3.

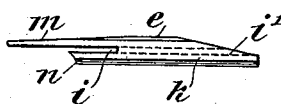


Fig. 4,

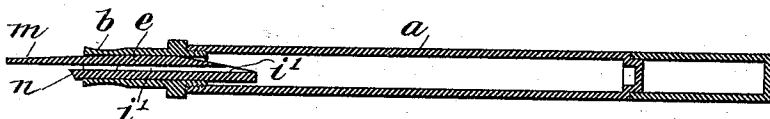
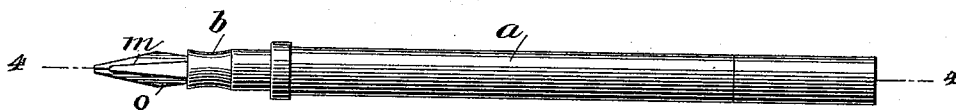


Fig. 5.



Witnesses

C. E. Ashley
H. W. Lloyd.

Inventor

David Beaumel.
By his Attorney
Fowler & Fowler.

UNITED STATES PATENT OFFICE.

DAVID BEAUMEL, OF NEW YORK, N. Y.

FOUNTAIN-PEN.

SPECIFICATION forming part of Letters Patent No. 491,795, dated February 14, 1893.

Application filed May 14, 1890. Serial No. 351,832. (No model.)

To all whom it may concern:

Be it known that I, DAVID BEAUMEL, a citizen of the United States, residing at the city of New York, in the county of New York, and State of New York, have invented a new and useful Improvement in Fountain - Pens, of which the following is a specification.

My invention relates to fountain pens and it consists in the various novel and peculiar combinations and arrangements of the several parts of the device, all as hereinafter fully described and then pointed out in the claims.

I have illustrated a type of my invention in the accompanying drawings, wherein;

Figure 1 is a side view of a fountain pen made in accordance with my invention—the cap for protecting the pen point when the pen is not in use being mounted upon the butt end of the holder. Fig. 2 is a view of a cross section of the pen, the plane of which section is indicated by line 2—2, Fig. 1. Fig. 3 is a side view of the feed-plug which is shown detached from the pen. Fig. 4 is a longitudinal sectional view of the pen, the plane of the section being indicated by line 4—4, Fig. 5. In this view the pen blade is omitted. Fig. 5 is a top plan view of the pen.

Referring to the drawings, in which like letters of reference indicate like parts throughout, the barrel *a*, of the pen is a cylindrical tube of the ordinary form used in fountain pens, with the butt end thereof closed and with the other end open. The open end of the pen barrel is preferably formed with an internal screw-thread into which screws an external screw-thread formed upon the inner end of the tube section or nozzle *b*.

Into the mouth of the tube section or nozzle *b*, is inserted the feed-plug *e*, which is practically of a cylindrical shape in cross section or of a shape conforming to that of the interior of the nozzle. This feed-plug *e*, is formed with an air-duct or inlet *i'* which extends longitudinally through the plug and preferably along the axis thereof. This air-duct is made sufficiently small in its bore to prevent the ink from passing from the barrel through such duct so that practically no ink can escape down the duct. The feed-plug *e*, is formed with plain or flattened sides, *k*, *k*, which cut-away portions extend longitudi-

nally of the plug and are located upon opposite sides thereof and they together with the interior walls of the nozzle and barrel in which the plug is inserted, constitute the ink feeding ducts or channels, as will be readily understood from Fig. 2. The outer end of the feed-plug is provided with an upper feed-tongue or finger, *m*, and a lower feed-tongue, *n*, between which is a space or cleft *i*, into which is inserted the pen point *o*, which is to be supplied with ink. These tongues are shown as formed integral with the feed-plug and they are made by tapering the outer end of the plug and sawing or cutting a slit longitudinally the plug extending over part of the length thereof so as to form an upper and a lower tongue *m* and *n*. These tongues are shown as of unequal length the upper being longer than the lower. The air-duct *i'*, and the ink-ducts *k*, *k*, lead from the inner end of the feed-plug which comes in contact with the ink in the barrel, through the length of the plug and open at the bases of the feed-tongues, *m* and *n*, intermediate the same, so as to feed the ink to the pen point or blade inserted there-between.

The pen is filled with ink and used in the common well-known way. In use it will be found that practically no ink escapes through the air-duct *i'*, for the ink will not pass through so small a duct or channel while the air will pass freely through it, the ink being supplied by the larger channels, or ducts, *k*, *k*, which at the same time offer so much resistance that the ink will not flow on to the blade too rapidly. Thus while a sufficient and continuous flow of ink is obtained all danger of blotting is obviated. Another advantage of this construction is that the ink on entering the ink-ducts will part with any air bubbles it might have received from the air inlet and so flows on to the pen point in a solid and uninterrupted supply. The feed-plug *e*, being only held in place in the nozzle by friction may be easily taken out and inserted when cleaning the pen or other circumstances may require it.

Having thus described my improvements in fountain pens, what I claim as my invention and desire to secure by Letters Patent is:

1. In a fountain pen, the combination with a nozzle, of a feed-plug having a feed-tongue, an air-duct extending through said plug and

opening upon the inner or pen surface of said tongue, said plug provided with flat or cut-away sides forming together with the interior of the nozzle peripheral ink-ducts extending
5 along the plug.

2. In a fountain pen, the combination with a nozzle, of a feed-plug having upper and lower feed-tongues, an air-duct extending through said plug and opening upon the inner or pen surface of said tongues, said plug
10 provided with flat or cutaway sides forming together with the interior of the nozzle peripheral ink-ducts extending along the plug.

3. In a fountain pen, the combination, with
15 the nozzle, of a feed-plug having flat sides, upper and lower feed-tongues formed integral

with the plug, and an air-duct extending throughout the length of the said plug.

4. As an article of manufacture, a feed-plug for fountain pens, consisting of a single piece
20 of hard rubber having flattened sides, upper and lower feed-tongues formed integral with the plug, and an air-duct extending throughout the length of the said plug.

In testimony that I claim the foregoing as
25 my invention I have signed my name, in presence of two witnesses, this 3d day of May, 1890.

DAVID BEAUMEL.

Witnesses:

HARRY M. REQUA, Jr.,

WILLIAM A. CROWA.