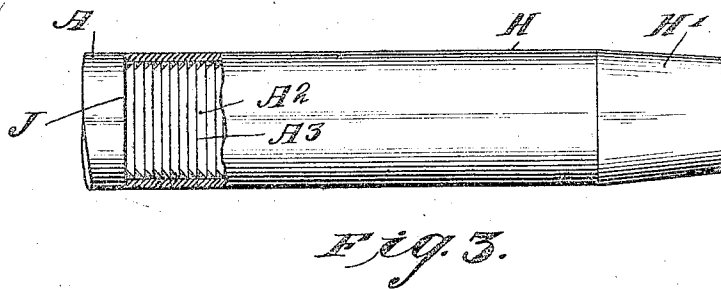
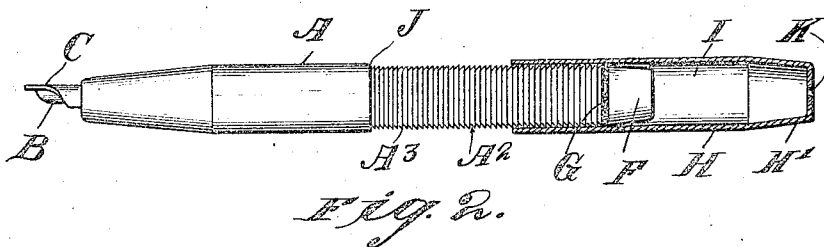
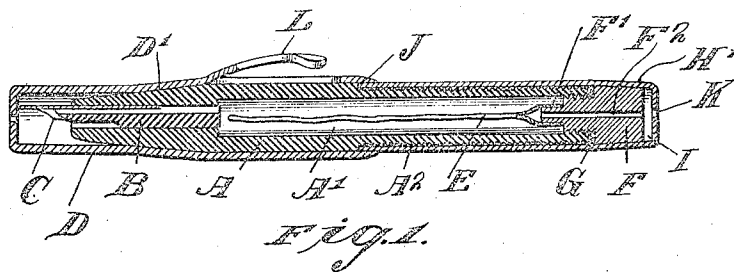


F. M. ASHLEY.  
FOUNTAIN PEN.  
APPLICATION FILED JAN. 30, 1917.

1,317,472.

Patented Sept. 30, 1919.



INVENTOR  
*Frank M. Ashley*  
BY

ATTORNEY

# UNITED STATES PATENT OFFICE.

FRANK M. ASHLEY, OF BROOKLYN, NEW YORK, ASSIGNOR, BY MESNE ASSIGNMENTS,  
TO THE WAHL COMPANY, OF WILMINGTON, DELAWARE, A CORPORATION OF DELA-  
WARE.

## FOUNTAIN-PEN.

1,317,472.

Specification of Letters Patent. Patented Sept. 30, 1919.

Application filed January 30, 1917. Serial No. 145,356.

To all whom it may concern:

Be it known that I, FRANK M. ASHLEY, a citizen of the United States, and resident of New York city, borough of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Fountain-Pens, of which the following is a specification.

My invention relates to fountain pens and the object of my invention is to provide a construction of simple parts, easy to fill, large ink capacity, and ornamental in appearance. Further objects and advantages are hereinafter described and specifically referred to in the claim.

Figure 1, is a longitudinal sectional view of a fountain pen embodying my invention.

Fig. 2, is an exterior view of the same showing the air compressing cylinder in section and the preferred means of securing an easy sliding air tight fit between the said cylinder and the barrel of the pen.

Fig. 3, is an enlarged view of one end of the pen shown partly in section to disclose the lubricating material located in the annular grooves formed in the outer surface of the barrel.

A, indicates the barrel of the pen provided with a reservoir A'. B, indicates the feed plug; C, the pen proper, D, the cap; E, an expandible displacement member; F, a threaded plug; G, a disk of cork or other suitable material, and H, the cylindrical compressing member and casing. This member could be made to serve as a cap by making the front end of the barrel the same diameter as that of the portion containing the annular grooves and thereby dispense with the cap D, as will be readily understood, but I prefer to use the cap D for the reason that it will present an ornamental appearance when made of silver where the member H is also made of the same material, thus presenting a metal casing which may be chased or ornamented in any desired manner.

I prefer to make the barrel A, of rubber and to form a number of concentric grooves indicated by A<sup>2</sup> in its periphery, the edges being formed sharp as shown so that the compressing member H will cause these sharp edges indicated by A<sup>3</sup> to bend or give slightly when the compressing cylinder is forced over them, permitting the said cylinder to move freely and smoothly over the

barrel and yet maintain an air tight joint between the barrel and interior of the compression cylinder. The cork disk G also acts to effect an air tight joint between the said cylinder and barrel and also keep a tight joint between the barrel and plug F, and therefore I may omit the grooves, if I desire, on account of the extra expense in manufacturing the barrel, but where a good long life construction is desired, I prefer to use the grooves. I may also use a lubricant of graphite or soap in the grooves and this is illustrated in Fig. 3.

The plug F is screwed into the end of the barrel and is provided with a projection over which the open end of the expansion member E is fitted. A passage F<sup>2</sup> serves to connect the chamber I and interior of the expanding member, which is preferably made of soft rubber and extends approximately the length of the barrel and is very small in diameter so that almost the whole capacity of the reservoir is retained for the storage of ink. The exterior diameter of the compressing member is preferably made equal to that of the barrel at the point J, and the open end of the cap is made to overlap the adjacent end of the member H, thus entirely incasing the barrel A in a thin metal casing.

The end of the member H is tapered at H' to correspond with the taper formed on the end of the plug F and with the cap D at D' and therefore the member H is normally held by friction to the member E and the cap D may be held to the member H when the tapered portions are brought together.

To fill the pen the cap D is removed, the compressing member is moved outward on the barrel as illustrated in Fig. 2, and then by covering the hole K by a finger and sliding the cylinder H to its position shown in Fig. 1, the air trapped in the chamber I is forced into the expanding member E causing it to expand and drive the air from the reservoir A'. Then by placing the pen C beneath the surface of the ink supply and removing the finger from the hole K, the air compressed in the member A' will escape, due to the contraction of the rubber member E, thus causing rarefaction in the reservoir A' and the ink will then flow through the feed passage in the plug B and into the reservoir.

The clip L is formed by pressing out a portion of the metal forming a cap, with a die so that it forms an integral part of the cap.

5 It will be noted that there is no manipulation of the member H, after the pen is inserted in the ink supply and therefore no danger of jamming the pen point against the bottom of the ink container in the filling  
10 operation.

Having thus described by invention, I claim as new,

A fountain pen having a barrel, the interior of which constitutes a reservoir, and

provided with a number of concentric 15 grooves having sharp edges formed in its exterior surface; a compressing member adapted to slide over said grooves and force air into said expansible member to cause it to expand and displace the air contained in 20 said reservoir.

Signed at New York, in the county of New York and State of New York, this 8th day of January, A. D. 1917.

FRANK M. ASHLEY.

Witnesses:

HARRY C. HEBIG,  
J. W. ANDERSON.