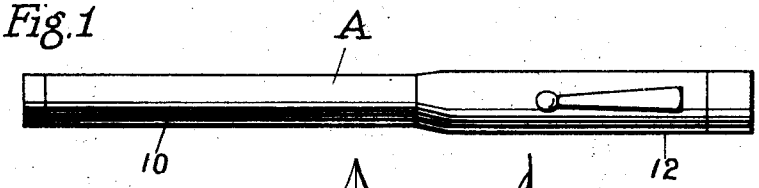
Aug. 12, 1930. F. J. KRISTOFEK 1,772,608

FOUNTAIN PEN

Filed April 25, 1925

Fig.1



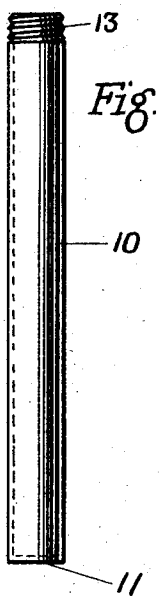


Fig.2

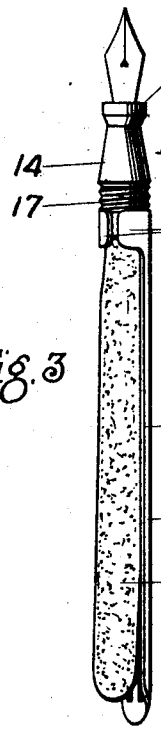


Fig.3

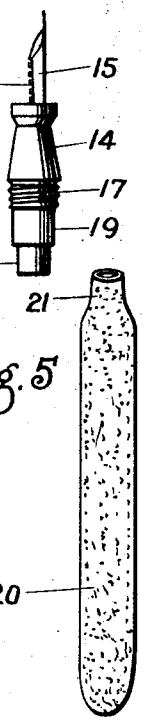


Fig.4

Fig.5

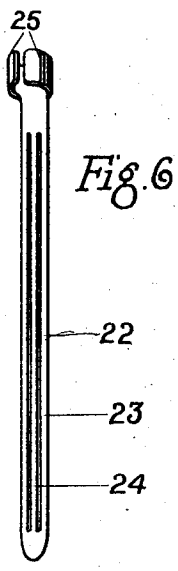


Fig.6

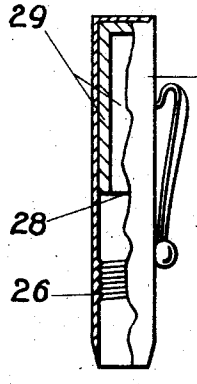


Fig.8

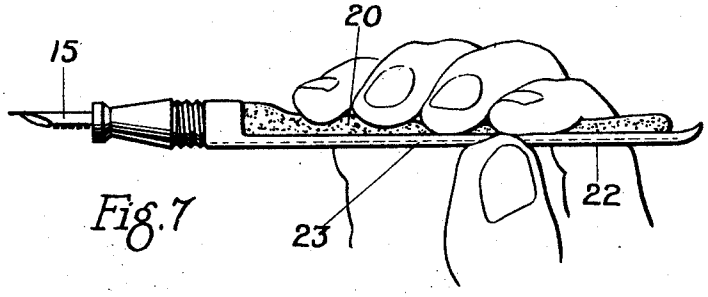


Fig.7

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UNITED STATES PATENT OFFICE

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FOUNTAIN PEN

Application filed April 25, 1925. Serial No. 25,850.

My invention relates to fountain pens and the primary object is in providing a fountain pen with a large ink sack with a simple means for depressing or collapsing the sack to fill the same with ink. The simplicity of construction is a feature of importance in my fountain pen as it permits the fountain pen to be manufactured in an economical way, provides a construction which is easily operated and is efficient because of the accessibility of the parts of the pen for replacement or inspection and to permit the pen to be kept in good order at all times. These features are very essential in providing a fountain pen for general use.

It is also a feature of my invention to provide a fountain pen wherein the portion of the barrel covering the sack may be made of metal, having a thin wall to provide a small diameter fountain pen barrel, yet permitting a very large ink sack to be used; or a barrel of any suitable material may be employed to cover the ink sack and operating member. The barrel is attached to the writing end of the pen by threading, or any other suitable means, and it is preferred that the same means be used in attaching the cap which covers the pen when it is not in use. It is to be noted that this simplifies the manufacturing cost by providing a single thread for attaching the barrel casing over the sack to protect the same and by using this same thread to attach the cap to the barrel.

A feature of the invention resides in a simple removable bar held to the writing end of the pen, within the barrel, to extend along the side of the ink sack and form a bearing surface against which the sack is pressed by the fingers of the operator. In filling my pen this construction is so simple that anyone can easily operate it and in so operating my fountain pen the objectionable features of levers and other intricate parts are done away with. This construction also provides a means for filling the pen which out of necessity in operation requires the user of the pen to take time to permit the sack to expand and thus practically fill the same with ink, whereas in lever pens the lever is snapped back from depressing position, the pen is jerked out of the ink before the sack has time to expand and therefore many users of fountain pens do not fill the pen completely because they are unaware of the real operation of the pen. In my fountain pen the absence of lever operation mechanism, which must be attached to the barrel or in some manner connected therewith, so as to properly operate, permits practically the entire dimensions of the barrel to be used for the sack, thus permitting a much larger sack and doing away with intricate parts in the manufacture and providing a fountain pen which permits the operator to inspect the ink sack whenever it is filed. This construction also permits the ink sack to be easily replaced.

These features, together with other important points of construction in operation of my fountain pen will be more fully set forth in the specification and claims.

In the drawings forming part of my specification:

Figure 1 illustrates my fountain pen in its entirety.

Figure 2 illustrates the empty barrel or portion which covers the sack.

Figure 3 illustrates the pen with the barrel and the cap removed.

Figure 4 illustrates the pen feed assembly with the sack removed.

Figure 5 illustrates the sack removed.

Figure 6 illustrates the bar.

Figure 7 illustrates the operation of filling my pen.

Figure 8 illustrates the cap of my pen.

The drawings show my pen A which is provided with a barrel 10 and a cap 12. The barrel 10 illustrated is formed of tubing having a thin wall and which is closed on the end 11 and threaded at 13.

The pen assembly 14 is provided with a pen 15, a feed 16, a threaded portion 17, a sack engaging nipple 18 and a bar holding shoulder 19.

The sack 20 is formed of rubber or any suitable flexible material which is best adapted for use in fountain pens, to hold the ink for the same. The restricted neck 21 of the sack 20 is adapted to be expanded and attached to the nipple 18 of the pen assembly so

as to hold the same frictionally thereon. The sack 20 may be attached to the nipple 18 by using an adhesive on the outer surface of the nipple, which will seal the neck 21 of the sack firmly to the nipple.

Bearing bar 22 is died out of sheet material and is formed with a hollow, longitudinally extending portion 23 which is adapted to fit and extend along the ink sack 20. This portion 23 is provided with a longitudinally extending reinforcing rib 24 which stiffens the portion 23 in addition to the hollow shape of the same. Bar 22 is formed with attaching ears 25 which are formed cylindrical and circular in cross section so as to engage the shoulder 19 under frictional tension to hold the bar 22 attached to the pen assembly 14 with a portion 23 extending along and fitting around the ink sack 20.

In operation my pen A is adapted to be filled by removing the pen assembly with the ing sack and bearing bar 22 as a unit, and the sack 20 and bar 22 are engaged by the fingers as illustrated in Figure 7, having the fingers cover the major portion of the sack 20 so as to flatten the same against the bearing bar 22. This forces approximately all of the air out of the sack and while the sack is in this compressed condition the pen 15 is dipped into the ink to a depth so that the pen will not draw any air but will take a draft of ink into the sack so as to approximately fill the same. I have found that my pen holds a very large amount of ink, while the tubular barrel 10 is only of ordinary small size and thus I provide a fountain pen A of a very desirable construction, which is simple in its operation, quickly and easily filled, and parts may be disassembled and separated from each other so that any part can be replaced.

The threaded portion 17 of the pen assembly engages the threaded portion 13 on the barrel 10, while the cap 12 of the pen is provided with a threaded portion 26 which engages the threaded portion 13 at the outer surface thereof to seal the edge 27 of the pen assembly 14 against the edge 28 with the pen extending in the cap member 29. This simple means of manufacture eliminates complicated mechanism and provides a very desirable fountain pen construction.

In accordance with the patent statutes I have described the principles of operation of my fountain pen together with the best embodiment thereof, which is only illustrative, in the drawings, and I desire to have it understood that the invention can be carried out by other means and applied to uses other than those above set forth, within the scope of the following claims.

I claim:

1. A fountain pen including a pen section, a threaded portion for receiving a barrel member, a shank portion for receiving a compressor bar and a shank beyond said first shank adapted to receive the ink sack of said fountain pen.

2. A fountain pen having a pen section adapted to receive a pen point in one end, a threaded portion for receiving a tubular barrel, a cylindrical shank of a slightly less diameter than said threaded portion, a second shank extending beyond said first shank adapted to receive the attaching end of an ink sack, and a compressor bar having a spring engaging collar adapted to engage said first shank on said bar under spring tension, to hold said bar in operative position.

3. A fountain pen including a pen section, a collapsible ink sack, a channel shaped presser bar formed in a single piece, a spring collar formed on the end of said bar, and a surface formed on said pen section adjacent the attachment of said ink sack to said section to permit said spring collar to firmly engage therewith without interfering with the attachment of the sack.

4. A fountain pen comprising a pen section, a single piece ink compressor channel member adapted to expose the ink sack along one side thereof, and means for holding said compressor bar on said pen section independent of the attachment of the ink sack.

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