

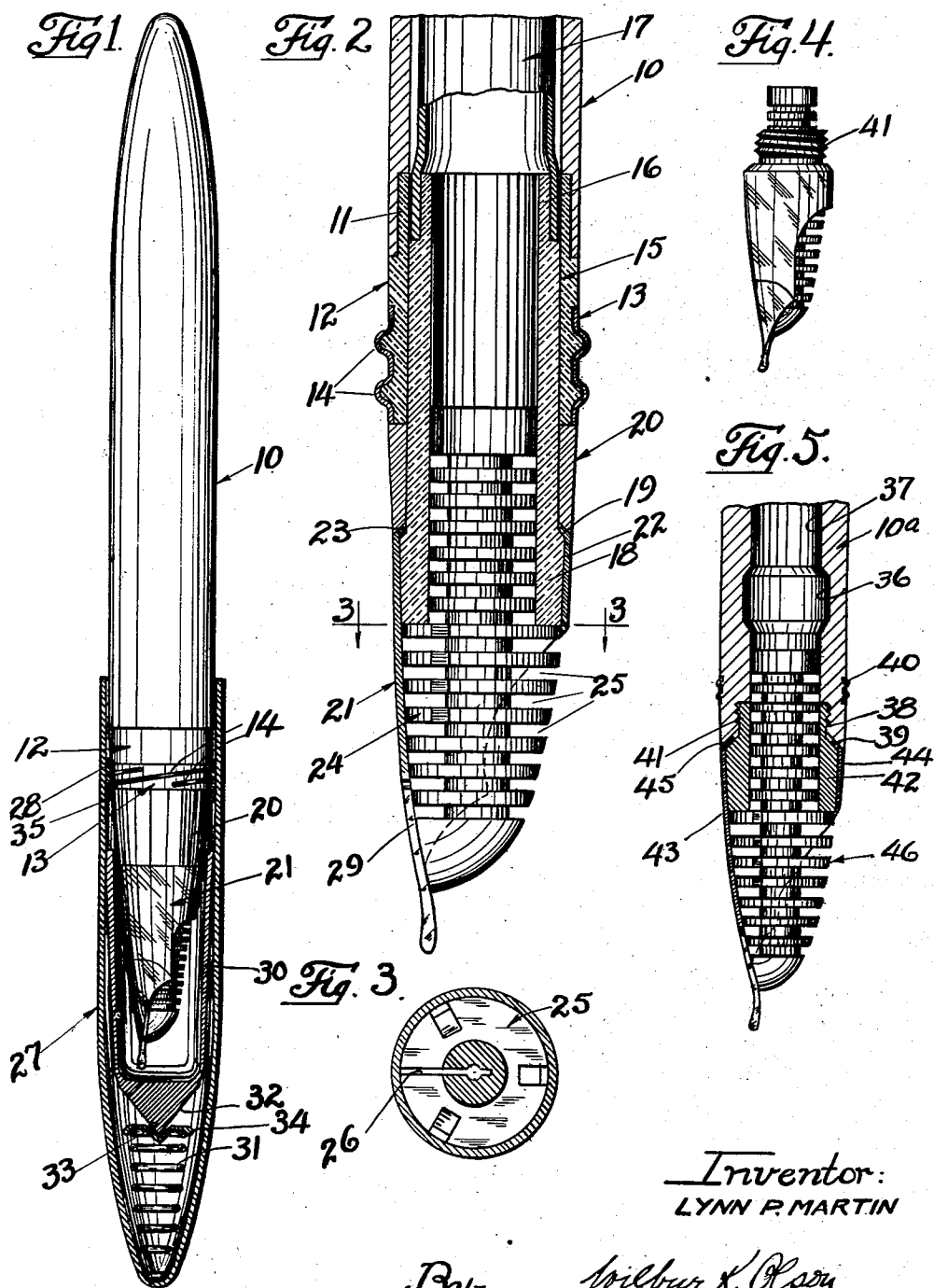
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FOUNTAIN PEN

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FOUNTAIN PEN

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23 Claims. (Cl. 120—51)

This invention relates to a fountain pen and has special reference to the writing point and writing fluid feeding means therefor.

More particularly, this invention relates to a fountain pen comprising a tubular barrel having a writing point with a tubular shank portion enveloping one end of the barrel and extending outwardly from the end thereof, and a feed bar having a shank portion engaging the bore of the barrel, a portion of the feed bar extending outwardly from the bore end of the barrel cooperating with the extending portion of the writing point to direct writing fluid thereto.

The present invention also contemplates the provision of a writing point unit for a fountain pen, the unit comprising a plug for detachable connection with the fountain pen and a writing point having a tubular shank portion for engaging and for enveloping at least a portion of the plug. The plug is preferably apertured for receiving a feed bar fitting in the aperture thereof and the feed bar thus may be an element of the detachable unit.

The shank of the usual writing point together with the end of a feed bar are ordinarily forced by wedging into the bore of the pen section. In order to obtain the best possible fit of the combined writing point and feed bar in the circular bore of the pen section, either the bore of the pen section is recessed over a longitudinal portion of the wall thereof to accommodate the thickness of the writing point, or the feed bar is partially cut away on the surface at the end entering the bore of the section to accommodate the thickness of the writing point. At best, the fit of the combined writing point and feed bar in the bore of the section is not such as to wholly seal the writing fluid in the fountain pen. It is necessary to rely upon manual adjustment in the relative positioning of the several elements and misalignment thereof is more than infrequent. Further, since the writing point has thickness there is a space at the edge on each side of the writing point of capillary dimensions, the spaces tending to direct the fluid from the reservoir of the barrel outwardly therefrom to cause leakage.

The wedging of the combined feed bar and writing point into the bore of the pen section results in a high percentage of breakage of either the feed bar or the pen section because of a force fit. It has been found quite frequently that use of very desirable materials cannot be made because of the relative brittleness thereof to withstand the force of application. Also,

many plastic materials shrink after the writing point and feed bar are disposed in position in the bore thereof, making it sometimes practically impossible to remove the writing point and feed bar for repair.

Seasoning of the plastic material, while for the most part accomplished prior to the formation of the pen section, continues almost indefinitely after the fountain pen is assembled for use. It so happens that the more usable plastic materials are subject to this deficiency. Therefore, while it would ordinarily be more desirable to use those materials not given to perceptible shrinkage after assembly of the fountain pen, such materials are, however, not so desirable to use because they are too brittle to withstand the force of application of the writing point and the feed bar thereto. Such other materials as will withstand to a greater extent the force of application of the writing point and feed bar into the bore thereof have the disadvantages of shrinking to prevent, in a substantial percentage of instances, the successful disassembly for repair thereof when necessary.

The present invention contemplates the elimination of the necessity of wedging the writing point and associated feed bar into the bore of the section by employing a tubular shank which may envelope either the pen section or a plug which may be detachably associated therewith. Rather than the tendency to a high percentage of breakage because of a force fit tending to expand the bore of the pen section, the present construction tends to reinforce the pen section by encircling the same.

The provision of a tubular shank portion aside from reinforcing the section by encircling it in an embraced relation, has strength imparted to it against bending stresses as is well known, a tube having greater resistance to bending than a strip or solid rod. The ordinary writing point is nothing more or less than a strip of relatively thin metal bent laterally into a slightly arcuate cross section. Also, in the usual writing point, where the shank thereof is inserted in the bore of the pen section, a pressure is imparted at the writing point end thereof in the course of writing which creates a very substantial leverage tending to bend the writing point at the end of the pen section, the end thereof being the fulcrum. Fractures of the writing point usually occur at this place. In the present contemplated construction, the stress is directly against the reinforced tubular portion of the writing point.

Substantially the same amount of gold is used in the same exposed length of writing point of the present invention as in the writing point of the usual type because the unexposed shank end of the writing point of the latter type is ordinarily held between the feed bar and the section. The material thus hidden from view within the section of the usual fountain pen is employed in effect as an underneath strip or band for connecting opposite sides of the writing point to form a tubular shank in the present invention. In other words, the material which would otherwise be hidden from view is, in the present invention, exposed as the underneath portion of the tubular shank of the writing point.

As a matter of fact, the provision of a tubular shank portion eliminates the necessity for the substantial thickness ordinarily required at the shank end in the usual writing point, a shank portion of minimum thickness being stronger in the tubular writing point than a materially greater thickness in the shank of the usual writing point.

The present invention is admirably adapted to form an element of a writing point unit for detachable engagement with a holder. As above described, the ordinary writing point is assembled permanently in proper writing position upon the feed bar and then the assembled feed bar and writing point are permanently mounted in the section of the fountain pen barrel. It is desirable in this instance to assemble the completed pen at the place of manufacture because of the required nicety of adjustment of the writing point on the feed bar. However, it is desirable in retail sales of fountain pens to offer a prospective purchaser one type of writing point and a particular barrel, both of which may happen to suit his taste.

In the present usual assembly of the writing points in the fountain pens at the place of manufacture, it has been necessary to maintain in a dealer's stock a large assortment and variety of fountain pens because of the demand for different barrel designs, and writing points. Thus, the provision of a writing point unit permits the dealer to offer a complete line of barrel designs and writing points with a minimum stock requirement.

Disassembly of the writing point and feed bar from a barrel of a fountain pen for repair and subsequent assembly thereof after repair require highly skilled workmen such as cannot be maintained profitably in the retail stores. Such skilled workmen, for the most part, are limited in employment to the places of manufacture. The accurate positioning of the writing point relative to the feed bar, and the forcing of the associated writing point and feed bar into the pen section is an operation if performed by others than highly skilled workmen, would invariably result in damage to the writing point.

Dealers with but ordinary knowledge of fountain pen construction have undertaken to change a writing point using whatever tools are at hand, frequently resulting in an adjustment of the writing point on the feed bar different from the adjustment which would permit the most accurate and desirable flow of writing fluid, if not resulting in serious damage to the writing point such as splitting, breaking, or bending out of shape. The present invention contemplates the immediate substitution by the dealer of a writing point unit for the unit needing repairs, if it is necessary for the user to have uninterrupted use

of the fountain pen. The unit is, thereafter, sent to the place of manufacture for the attention of the skilled worker.

One of the objects of this invention is to provide a fountain pen of the character indicated above wherein the writing point forms a part of a unit for detachable engagement with the barrel of the fountain pen.

Another object of this invention is to provide a fountain pen of the type noted above wherein the shank of the writing point is of tubular formation to envelope either the pen section or an element detachably engaged with the section or barrel of the fountain pen.

It is a further object of this invention to provide a fountain pen of the hereinabove referred to type which is relatively inexpensive to manufacture, is simple and efficient in operation and is durable.

Other objects and advantages of this invention will hereinafter be more particularly pointed out and for a more complete understanding of the characteristic features of the invention, reference may now be had to the following description when taken together with the accompanying drawing, in which latter:

Figure 1 is a side elevational view partially in section of a fountain pen embodying the features of this invention.

Fig. 2 is an enlarged fragmentary sectional view partially in elevation of the writing point end portion of the barrel of the fountain pen of Figure 1.

Fig. 3 is a sectional view taken on the line 3—3 of Fig. 2.

Fig. 4 is a side elevational view of a modified form of writing point unit embodying the features of this invention, and

Fig. 5 is a view similar to Fig. 2, incorporating the modified form of writing unit shown in Fig. 4.

Referring now to the drawing and more particularly to Figs. 1 to 3 inclusive thereof, the present invention is shown as being embodied in a fountain pen comprising a barrel 10 having an open counter-bored end for receiving a reduced extension 11 of a pen section 12.

The barrel 10 and the pen section 12 are preferably formed of a plastic material, the material of the barrel being preferably opaque and the material 12 of the pen section being preferably of a transparent or translucent material. Also, the plastic materials of the barrel and the pen section differ in kind in the particular embodiment illustrated, the barrel being of a cellulose acetate or cellulose nitrate plastic while the section is formed of a methacrylate plastic. The cellulose acetate and cellulose nitrate plastics are not as brittle as the methacrylate plastic but the methacrylate plastic is less given to shrinkage than the former, and also has the property of not becoming fouled by writing fluids, so that such fluids in passing therethrough may be viewed indefinitely through the transparency of the material.

The other end of the pen section 12 is provided with a band 13 fixedly secured thereto in any suitable manner, the band being preferably of metal and being provided with threads 14. A tubular sleeve 15, referred to hereinafter and in the claims as an apertured plug, telescopically engages the bore of the pen section 12, a portion at the forward end extending beyond the end of the section. The inner end of the tubular sleeve 15 is provided with a reduced extension 16 to receive a flexible sac 17, the sac acting as a

reservoir for writing fluid for the fountain pen. Where the barrel 10 acts as the reservoir for the writing fluid, the flexible sac, of course, is omitted and such construction will hereinafter be described more particularly with reference to Fig. 5.

The extending end of the tubular sleeve 15 has an enlarged head portion 18, the juncture between the head portion and the main body portion of the tubular sleeve forming a shoulder 19 providing an edge which is tapered longitudinally. The peripheral surface of the head portion 18 is also tapered longitudinally but in a direction opposite to the direction of the longitudinally tapered edge or shoulder 19.

The bore of the tubular sleeve 15 is preferably concentric with the bore of the pen section 12 and of the barrel 10. A collar 20 fitting around the outside of the tubular sleeve 15 butts against the end of the pen section 12 at one end thereof, the other end being undercut and being preferably inclined in a longitudinal direction at the same or substantially the same inclination as the shoulder 19.

A writing point 21 has a tubular shank portion 22 and a radially inwardly directed flange 23 extending from the shank portion. The tubular shank portion 22 envelopes in frictional engagement the head 18 of the tubular sleeve 15 and the flange portion 23 is preferably longitudinally tapered for overlying the tapered edge 19 of the tubular sleeve 15 at the intersection of the relatively enlarged and reduced portions thereof. It may be desirable in order to prevent relative rotation between the writing point 21 and the sleeve 15 that an adhesive be employed therebetween or that spurs or other means be extended from the writing point into the material of the sleeve. Such means are not shown, as an infinite variety of means for securing these two members against relative rotation may be employed aside from those mentioned.

A feed bar 24 is preferably provided with an enlarged head portion and a reduced shank portion, the shank portion being engaged in the bore of the tubular sleeve 15. The head portion of the feed bar is preferably of substantially conical shape and both head and shank portions are provided with comb cuts 25 extending transversely thereof and a longitudinally extending fissure 26 for directing the flow of writing fluid from the reservoir to the writing point. A detailed description of a feed bar of the type illustrated herein is more particularly described in my co-pending application, Serial No. 417,667, filed in the U. S. Patent Office on November 3, 1941.

The tubular shank 22 of the writing point 21 is preferably longitudinally tapered to fit the longitudinally tapered peripheral surface of the head 18 of the tubular sleeve 15. The extension of the writing point portion of the writing point 21 engages in its longitudinally tapered direction the substantial conical head of feed bar 24.

The feed bar 24, the tubular sleeve 15, and the writing point 21 are preferably assembled as a unit at the place of manufacture, the feed bar being held in a fixed relation against relative longitudinal movement with the tubular sleeve 15 by the tapered fit of the head thereof with the bore of the writing point. The writing point is held in a fixed relation with the tubular sleeve 15 by reason of the oppositely converging surface of the shank 22 and a flange 23 of the writing point 21.

The tubular sleeve 15, or as it has otherwise

been referred to as the apertured plug, is preferably formed of a methacrylate plastic material, the same as that of the section 12. The writing fluid in passing from the reservoir or flexible sac 17 contacts the side-walls of the bore thereof in directing the fluid to the feed bar and from thence to the writing point. A clear or transparent methacrylate is preferably employed in order that the writing fluid may be visible therethrough. However, it is desirable that only such portions as is necessary of the transparent material be exposed to view and, therefore, the collar 20 is preferably of an opaque material so that all of the transparent portion that is exposed is that indicated at 12 in Fig. 1, adjacent to the end of the barrel 10, the connecting band 13 and the shank of the writing point being opaque and together with the collar 20 wholly concealing the remainder of the tubular sleeve.

The writing point and writing fluid feeding means are preferably housed in a cap 27, the cap being preferably of metal, although, of course, it is to be understood that any other substantially rigid material such as plastic, rubber, or the like may be suitably provided. A threaded collar 28 is fixed to the inside wall of the cap 27 for cooperating with the threads 14 of the band 13 to prevent accidental displacement of the cap from the end of the barrel 10. In order that the writing fluid in the feed bar and slit 29 of the writing point be prevented from evaporation and to retain the writing point in a moist condition, an inner cap 30 is slidably disposed within the cap, the open end of the inner cap bearing against the tapered periphery of the collar 20 to effect a seal and the inner cap 30 being urged in the direction of the open end of the cap by a compression spring 31. The inner cap 30 is preferably of a plastic material, metal, rubber, or other composition.

When it is desired to fix the cap on the end of the barrel to effect a seal of the writing fluid, the writing point end of the barrel is inserted into the open end of the cap and rotated relatively thereto so that the threads 14 of the band 13 engage the threads of the band 28. The end of the inner cap engages the tapered peripheral surface of the collar 20 and the cap is moved against the compression of the spring 31.

Because of the rotation necessitated by the engagement of the cooperative threads, the closed end of the inner cap is preferably pointed to provide a conical extension 32 which engages a conical recess 33 in a disc 34. One end of the compression spring 31 bears against the under side of the disc 34 and the other end of the compression spring bears against the end of the cap 27. Relative rotation therefore between the cap and the barrel is not extended to the compression spring 31 which otherwise would have a tendency to wind and unwind, depending upon the direction of rotation. The substantial point contact between the conical shaped end 32 of the inner cap and the conical recess of the disc 34 substantially prevent any tendency toward rotation of the compression spring 31. The limit of rotation between the cap and the barrel is determined by a stop 35, the stop being in the form of a circular band and the threads 14 abutting thereagainst. The band 35 has the further function of limiting the outward movement of the inner cap 30.

In some instances the material of the barrel 10 is provided with windows to indicate the level of writing fluid in the reservoir as, for example,

where a plunger type pen is employed so that the clear section shown more particularly in Figs. 1 and 2 of the drawing is not necessary. Referring to Figs. 4 and 5 of the drawing, the writing point assembly has been adapted to a plunger type fountain pen. The barrel 10a of Fig. 5 is provided with an enlarged bore portion 36 at the end of the bore 37 of the barrel 10a. The plunger, as is well known, operates in the bore 37 of the barrel to create a suction therebehind when moved in the direction of the writing point end of the barrel, the suction being relieved when the plunger engages the enlarged bore 36. Upon the release of the vacuum behind the plunger, writing fluid is drawn into the barrel thereby for the filling operation.

Since no flexible sac is necessary to be employed, in the latter described construction, the barrel may be made of striated material, some of the striations of which may be clear or transparent so that, as aforesaid, there is no occasion for a clear band, as has been described in connection with the previous embodiment. The writing point end of the barrel is provided with internal threads 38 in a counter-bored portion thereof, the end edge being counter-bored as at 39. The externally threaded locking band 40, similar to the previously described threaded band 13, aside from engaging the threads of the cap act to reinforce the end of the barrel into which a reduced threaded extension 41 of an apertured plug 42 is engaged.

A writing point 43 has a tubular shank portion 44 and a radially inwardly directed flange 45 extending from the shank portion. The tubular shank portion 44 fits over the head 42 of the apertured plug and the flange portion 45 is preferably longitudinally tapered for overlying the tapered edge of the plug at the intersection of the relatively enlarged and reduced portions thereof.

A feed bar 46, the same as that previously described with reference to Figs. 1 and 2, is provided with an enlarged head portion and a reduced shank portion. The shank portion is engaged in the bore of the apertured plug 42 and extends therethrough into the bore of the pen section 10a. The head portion of the feed bar 46 is preferably of substantially conical shape and both head and shank portions are provided with a longitudinally extending fissure for directing the flow of writing fluid from the reservoir to the writing point and transversely extending comb cuts which act in the capacity of expansion chambers for containing such excess supply of writing fluid as is not needed for ordinary writing.

The feed bar 46, the apertured plug 42, and the writing point 43 are preferably assembled as a unit at the place of manufacture, the unit being shown more particularly in Fig. 4. The feed bar is held in a fixed relation against relative longitudinal movement with the apertured plug 42, as in the previously described modification, by the tapered fit of the head thereof with the writing point. The writing point is likewise held in a fixed relation with the apertured plug 42 by reason of the oppositely converging surfaces of the shank 44 and flange 45 of the writing point.

The unit as a whole is secured to the end of the barrel 10a by the threaded engagement of the reduced shank 41 of the apertured plug engaging the internally threaded bore at the end of the barrel. Different types of filling devices

demand different types of sections and no effort is made herein to relate the present invention to all of the different types. The apertured plug 42 as well as the apertured plug or tubular sleeve 15 may be considered as the pen section or may be an element thereof. As a matter of fact, in the present description and in the following claims, the pen nib is recited as having a tubular shank portion enveloping one end of the barrel and extending outwardly therefrom. Thus the apertured plugs of both modifications may be considered one end of the barrel as rightly they may, since instead of having the part forming the apertured plug separate or detachable from the barrel, it may, of course, be formed integrally therewith or as a part of the barrel.

The provision of a writing point unit as has been previously mentioned herein permits the reduction to a minimum of the stock necessary by a retail dealer so that the writing point units may be interchangeable with various designs of fountain pen barrels. However, if the provision of a detachable writing point unit is not desired, then the nib may be secured directly to the barrel without departing from the spirit and scope of this invention. Further, by reason of the construction of the writing point, the shank materials heretofore considered undesirable from thereof being tubular, different types of plastic the standpoint of fracturing may be employed in association therewith, since the writing point tends to re-enforce the plastic rather than to put a strain thereon.

While but two embodiments of this invention are herein shown and described, it is to be understood that various modifications thereof may be apparent to those skilled in the art without departing from the spirit and scope of this invention, and, therefore, the same is only to be limited by the scope of the prior art and the appended claims.

I claim:

1. A fountain pen comprising a barrel, a writing point having a tubular shank portion enveloping one end of said barrel and extending outwardly from the end thereof, and a feed bar having a shank portion engaging the bore of said barrel and a portion extending outwardly therefrom cooperating with the extending portion of said writing point to direct writing fluid thereto.

2. A fountain pen comprising a barrel, a writing point having a tubular shank portion enveloping one end of said barrel and extending outwardly from the end thereof, and a feed bar having a shank portion engaging the bore of said barrel and an enlarged head portion extending outwardly therefrom cooperating with the extending portion of said writing point to direct writing fluid thereto.

3. A fountain pen comprising a barrel for housing a writing fluid reservoir, a writing point having a tubular shank portion enveloping one end of said barrel and extending outwardly from the end thereof, a feed bar having a shank portion engaging the bore of said barrel and a portion extending outwardly therefrom, and means on said feed bar for diverting a supply of writing fluid from said reservoir to said writing point and for storing such excess of writing fluid as is unnecessary for writing.

4. In a fountain pen, a writing point unit comprising a plug for detachable connection with said fountain pen, and a writing point having

a tubular shank portion for engaging and for enveloping at least a portion of said plug.

5. In a fountain pen, a writing point unit comprising an apertured plug for detachable connection with said fountain pen, a feed bar fitting in the aperture of said plug, and a writing point having a tubular shank portion for engaging and for enveloping at least a portion of said plug.

6. In a fountain pen, a writing point unit comprising a plug for detachable connection with said fountain pen, a writing point having a tubular shank portion for enveloping at least a portion of said plug, and a radially inwardly directed flange on said shank portion for overlying an edge of said plug.

7. In a fountain pen, a writing point unit comprising a plug for detachable connection with said fountain pen, said plug having a longitudinally tapered peripheral surface, a writing point having a tubular shank portion with a longitudinally tapered bore for fitting the tapered peripheral surface of said plug, and a radially inwardly directed flange on said shank portion for overlying an edge of said plug.

8. In a fountain pen, a writing point unit comprising a plug for detachable connection with said fountain pen, said plug having a longitudinally tapered peripheral surface and an oppositely tapered edge, a writing point having a tubular shank portion with a longitudinally tapered bore for fitting the tapered peripheral surface of said plug, and an oppositely tapered inwardly directed flange on said shank portion for overlying the tapered edge of said plug.

9. In a fountain pen, a writing point unit comprising an apertured plug having a reduced extension for detachable connection with said fountain pen, the enlarged portion of said plug having a longitudinally tapered peripheral surface and a tapered edge at the juncture of the extension, a writing point having a tubular shank portion with a longitudinally tapered bore for fitting the tapered peripheral surface of said plug, an oppositely tapered inwardly directed flange on said shank portion for overlying the tapered edge of said plug for preventing relative longitudinal movement.

10. In a fountain pen, a writing point unit comprising an apertured plug for detachable connection with said fountain pen, said plug having a longitudinally tapered peripheral surface, a feed bar fitting in the aperture of said plug and having an extension with a longitudinally tapered peripheral surface, and a writing point having a tubular shank portion with a longitudinally tapered bore for fitting the tapered peripheral surface of said plug, said shank portion having an extension with a longitudinally tapered under surface for engaging the tapered peripheral surface of said feed bar, and a radially inwardly directed flange on said shank portion for overlying the end edge of said plug.

11. A fountain pen comprising a barrel having an open end, a plug detachably secured to said open end, and a writing point having at least a portion thereof enveloping at least a portion of said plug and being thereby secured thereto and to said open end.

12. A fountain pen comprising a barrel having an open end, a plug comprising a head portion and a reduced extension, said extension being detachably secured to said open end, a writing point having at least the shank portion thereof enveloping at least a portion of said plug, and

an inwardly directed flange on said shank portion between said head and said barrel.

13. A fountain pen comprising a barrel having an open end, a plug detachably secured to said open end, a writing point having a tubular shank portion thereof enveloping at least a portion of said plug, and a radially inwardly directed flange formed integrally on said shank portion and being disposed between said plug and said barrel.

14. A fountain pen comprising a barrel having an open end, said barrel having an undercut edge portion, a plug detachably secured to said open end, a writing point having a tubular shank portion thereof enveloping at least a portion of said plug, and an inwardly directed projection portion on said shank for engaging said undercut portion between said barrel and said plug.

15. A fountain pen comprising a barrel having an open end, said barrel having a circumferential undercut at the outer edge thereof, a plug detachably secured to said pen section, a writing point having a tubular shank portion thereof enveloping at least a portion of said plug, and a radially inwardly directed flange on said shank portion between said plug and said section for engaging said circumferential undercut.

16. A fountain pen comprising a barrel having an open end, said barrel having a circumferential tapered undercut at the outer edge thereof, a plug detachably secured to said barrel, said plug having a longitudinally tapered circumferential edge portion, and a writing point having a tubular shank portion thereof enveloping at least a portion of said plug, and a longitudinally tapered circumferential flange overlying said circumferential edge portion and being disposed in said undercut.

17. A fountain pen comprising a barrel having an open end, a pen section engaging said open end, an apertured plug detachably secured to said pen section, a feed bar fitting in the aperture of said plug and having an extension therefrom, a writing point having a tubular shank portion thereof enveloping said plug and an extension overlying said extension of said feed bar, and a radially inwardly directed flange formed integrally on said shank portion and being disposed between said plug and said section.

18. A fountain pen comprising a barrel having an open end, a transparent pen section engaging said open end, a transparent apertured plug having a head and a reduced end, said reduced end engaging the bore of said pen section, a feed bar fitting in the aperture of said plug and extending outwardly therefrom, a writing point having a tubular portion at the shank end thereof for engaging and for enveloping the head of said plug and a forwardly extending portion for overlying said feed bar, and an opaque band overlying and being in engagement with a portion of the reduced end of said plug adjacent said writing point.

19. A fountain pen comprising an opaque barrel having an open end, a pen section having a reduced extension for engaging the bore of said barrel, said section being of transparent material, a transparent apertured plug engaging the bore of the extending portion of said section, an annular opaque band fitted to one end of said plug and extending for a portion of the length thereof, a feed bar fitting in the aperture of said plug and extending outwardly therefrom, and a writing point having a tubular portion at the shank end thereof for engaging and for envelop-

ing the end portion of said plug extending forwardly of said opaque band, said writing point having a forwardly extending portion for overlying said feed bar.

20. A fountain pen comprising a barrel having an open end and a cap therefor, a pen section engaging said open end, a band fixed to said pen section, said band having connecting means for detachably connecting said cap to said barrel, an apertured plug having an extending end for engaging the bore of said pen section, a feed bar having a shank portion fitting in the aperture of said plug and an enlarged head portion extending outwardly therefrom, and a writing point having a tubular portion at the shank end thereof for engaging and for enveloping at least a portion of said plug and a forwardly extending portion for overlying the enlarged head portion of said feed bar.

21. A fountain pen comprising a barrel having an open end and a cap therefor, a pen section engaging said open end, a threaded band fixed to said pen section, the threads of said band engaging threads on said cap for detachable engagement of said cap and barrel, an apertured plug having a reduced portion for engaging the bore of said section, a feed bar having a portion fitting in the aperture of said plug and an enlarged substantially conical-shaped head portion extending outwardly therefrom, and a writing point having a tubular portion at the shank end

thereof for engaging and for enveloping said plug and a forwardly extending conveying portion for overlying the conical-shaped head portion of said feed bar.

22. A fountain pen comprising a barrel having an internally threaded open end, an apertured plug having a threaded extension engaging said open end, a feed bar having a portion fitting in the aperture of said plug and a head portion extending outwardly therefrom, and a writing point having a tubular portion at the shank end thereof for engaging and for enveloping said plug and a forwardly extending portion for overlying the head portion of said feed bar.

23. A fountain pen comprising a barrel having an internally threaded open end, an externally threaded band fixed to said pen section, said open end having an undercut edge portion, an apertured plug having an externally threaded end for engaging said internally threaded open end and a shoulder disposed adjacent said undercut edge portion, a feed bar fitting in the aperture of said plug and extending outwardly therefrom, and a writing point having a tubular portion at the shank end thereof for engaging and for enveloping said plug, and a radially inwardly directed flange urged into engagement with said undercut edge portion by said shoulder, said tubular portion having a forwardly extending portion for overlying said feed bar.

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