

C. A. LUCK.  
 PEN POINT HOLDER.  
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1,315,373.

Patented Sept. 9, 1919.

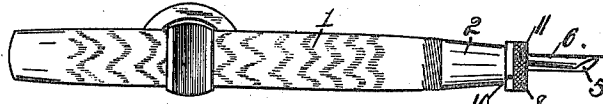


FIG-1-

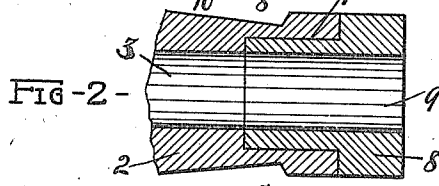


FIG-2-

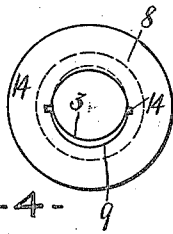


FIG-4-

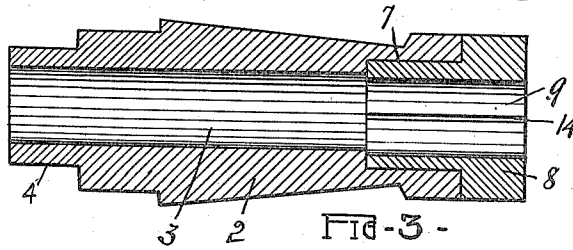


FIG-3-

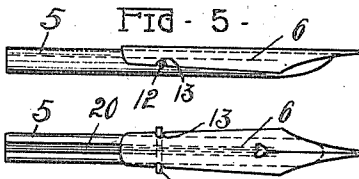


FIG-6-

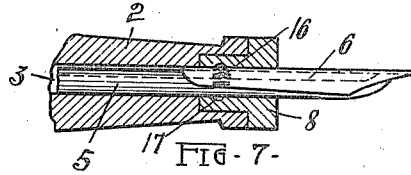


FIG-7-

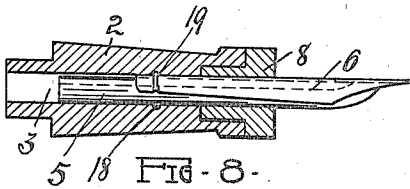


FIG-8-

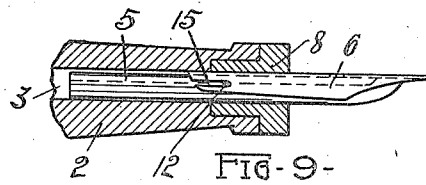


FIG-9-

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# UNITED STATES PATENT OFFICE.

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## PEN-POINT HOLDER.

1,315,373.

Specification of Letters Patent. Patented Sept. 9, 1919.

Application filed October 26, 1918. Serial No. 259,756.

*To all whom it may concern:*

Be it known that I, CHARLES A. LUCK, a citizen of the United States, and a resident of Toledo, in the county of Lucas and State of Ohio, have invented a certain new and useful Pen-Point Holder; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the characters of reference marked thereon, which form a part of this specification.

This invention relates more particularly to fountain pens, and has for its object the provision of simple and efficient means for securing the pen point and feed bar to the pen point carrying section of a fountain pen, which means is operable to firmly hold said parts in assembled relation, and also to permit an easy separation or assembling thereof.

With the present construction of fountain pens considerable pressure is applied to the feed bar and pen point in forcing them in holding position in the pen point carrying section, such pressure usually being applied by a machine, thereby rendering it extremely difficult to remove the pen point and feed bar from the carrying section without injury to the pen point, unless done by an experienced person.

An object of this invention is to render such removal of the pen point and feed bar easy and without danger of injuring the pen point. Further objects and advantages of the invention will be apparent from the following detailed description thereof.

While the invention in its broader aspect is capable of embodiment in numerous forms, a preferred embodiment thereof and a few modifications of a part thereof are illustrated in the accompanying drawings, in which,—

Figure 1 is a side view of a fountain pen embodying the invention. Fig. 2 is an enlarged fragmentary view of the pen point carrying section and lock member in central longitudinal section and relatively positioned to place the bores thereof in alignment. Fig. 3 is an enlarged view of the pen point carrying section and lock member in central longitudinal section and relatively positioned to throw the bores thereof out of

axial alinement. Fig. 4 is an outer end view of the part shown in Fig. 3. Figs. 5 and 6 are different views of a pen point and feed bar in assembled relation and provided with interengaging parts. Fig. 7 is an enlarged fragmentary view of a pen point carrying section and lock member in central longitudinal section and with a feed bar and pen point positioned therein, the pen point and lock member being provided with interengaging means. Fig. 8 is a similar view with the pen point and carrying section provided with interengaging means, and Fig. 9 is a similar view with the pen point longitudinally slotted at its rear end and engaging over a positioning pin on the feed bar.

Referring to the drawings, 1 designates the barrel of a fountain pen, 2 the pen point carrying part or section, which is customarily removably fitted into the open inner end of said barrel and provided longitudinally therethrough with the customary bore or passage-way 3 in communication at its inner end with the interior of the barrel, if such barrel serves as the ink reservoir, or with the interior of the customary bag (not shown), which may have its mouth fitted over a reduced nipple 4 at the inner end of the carrying section 2, as well understood in the art. 5 and 6 designate the customary feed bar and pen point, respectively, which with the fountain pens now in use, are forcefully inserted into the outer end portion of the bore of the carrying section 2 and fit tightly therein.

In carrying out my invention, the outer end of the bore 3 of the carrying section is provided with a cylindrical enlargement 7 into which a lock nipple or member 8 is fitted for transverse rotary movements therein. The outer end of this nipple is preferably enlarged without the end of the carrying section to a size substantially equal to the outer end of said section, and is intended to abut thereagainst, as shown. It is also preferable to knurl or roughen the peripheral surface of the nipple enlargement to facilitate a hand gripping thereof when being turned in the carrying section. A bore 9 is provided longitudinally through the nipple and is substantially of the same diameter as the bore 3.

In the present instance, the bore enlargement 7 in the carrying section 2 is concen-

tric with the axis of said section and the section bore 3 and the nipple bore 9 are slightly offset laterally of the section axis and adapted to axially aline when the nipple is in one position of rotary adjustment relative to the carrying section, as shown in Fig. 2, and to be moved out of such alinement by a relative turning of said nipple and section, as shown in Figs. 3 and 4. The carrying section and nipple bores are of suitable size to permit a free or comparatively easy insertion of an assembled feed bar 5 and pen point 6 therein or a removal of the same therefrom when such bores are axially alined.

It is evident that a turning or angular adjustment of the nipple 8 relative to the carrying section 2 from its alined position shown in Fig. 2, will cause a firm gripping of the feed bar and pen point between portions of the carrying section and nipple at opposite sides of their axes, as is clearly apparent by reference to Figs. 3 and 4, which are exaggerated in this respect. In other words, a turning of the nipple within the carrying section from the alined position shown in Fig. 2 causes a camming action to be exerted on the feed bar and pen point relative to the carrying section to firmly grip them therein, the gripping force on said parts being increased in proportion to the extent of relative turning of the carrying section and nipple. To facilitate a finding of the alined positions of the carrying section and nipple bores, the adjacent peripheral edges of the section and nipple are provided with notches, lines or marks 10 and 11, respectively, which longitudinally register when the bores of said parts are in axial alinement.

In Figs. 5 and 6 the feed bar 5 is shown as having a pin 12 projected transversely there-through with its ends projecting beyond the sides of the feed bar and positioned to enter notches 13 in the respective side edges of the pen point, thus facilitating an assembling of the feed bar and pen point and the retaining of the same in proper position while being inserted in and gripped by the nipple 8 and pen point carrying section 2. If the ends of the pin 12 project beyond the side edges of the pen point, the nipple 8 may be provided in opposite sides of its bore with longitudinally-extending notches 14 for receiving the respective pin ends. The interengaging of the pin and nipple in this manner causes a turning of the feed bar, pen point and nipple together relative to the pen point carrying section 2 so that an undue lateral strain will not be placed on the pen point to throw it out of proper position on the feed bar when the nipple is angularly adjusted.

In Fig. 9, the pin 12 of the feed bar is shown as entering slots or notches 15 pro-

vided longitudinally in the rear end of the pen point instead of in the side edges thereof.

In Fig. 7 the pen point is shown as being provided with transversely alined raised portions 16, which are adapted to spring into an annular recess 17 in the nipple to serve to lock or firmly retain the pen point in the nipple.

In Fig. 8 the pen point carrying section 2 is provided with an internal annular recess 18 into which a transverse ridge or raised portion 19 on the rear end portion of the pen point may seat, thus serving to lock the carrying section, nipple, feed bar and pen point against relative longitudinal displacement.

It is found in practice that an additional advantage over locking the pen point and feed bar in the carrying section is obtained by my invention, as the tightening or loosening of the pressure on the pen point against the feed bar serves to control the feed of the ink through the capillary feed grooves 20 in the feed bar. It is evident that the greater the annular tightening adjustment of the nipple 8 relative to the carrying section 2, the greater will be the pressure of the pen point against the feed bar, and the feed of ink through the capillary passages of the bar reduced accordingly.

An important feature of the present invention is that it enables the user of the pen to easily remove and replace a pen point, so that steel or other pen points which corrode more or less quickly, can be used in place of the more expensive gold pen points which are now commonly used in fountain pens.

I wish it understood that my invention is not limited to any specific construction, arrangement or form of the parts, as it is capable of numerous modifications and changes to accomplish the same result without departing from the spirit of the claims. I also wish it understood that while I have particularly described my invention in connection with a fountain pen, it may be effectively used in connection with pen holders other than of the fountain type.

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

1. In a pen-holder, a pen-point carrying section and a lock member carried thereby for relative angular adjustment about a line longitudinal to the carrying section, said section and member having pen-point receiving openings communicating one with the other, longitudinally of the holder, with the walls thereof cooperating to grip and hold a pen-point inserted in the openings when the lock member is turned from one position relative to the carrying section.

2. In a pen-holder, a pen-point carrying section and a lock member rotatably carried

thereby, said section and member having pen-point receiving openings communicating end to end, one with the other, longitudinally of the holder, with the turning axis of the lock member eccentric to the axis of the carrying section opening whereby a relative turning of the section and member causes a gripping or releasing of the pen-point therein.

thereto and operable to exert a holding pressure on the feed bar and pen point, said pressure increasing with the extent of angular adjustment of said means from one position relative to the section.

10. In a fountain pen, a pen point carrying section and a member carried for transverse rotary movements relative thereto, said section and member having feed bar and pen point receiving openings, one of which is eccentric to the turning axis of said member, and a pen point and feed-bar disposed in said openings.

11. In a fountain pen, a pen point carrying section, a nipple journaled in the outer end of said section for transverse rotary movements relative thereto, said section and nipple having communicating feed bar and pen point receiving openings therethrough which are relatively offset with respect to the turning axis of said nipple, and a pen-point and feed-bar disposed in said openings.

12. In a fountain pen, a pen point carrying section having a feed bar and pen point receiving opening therethrough which opening is provided with a cylindrical enlargement at its outer end, a nipple journaled in said enlargement for transverse rotary adjustment relative to the section and having its bore in longitudinal register with the section opening for the insertion of a feed bar and pen point therethrough into said opening, the turning axis of said nipple being slightly offset with respect to the axis of one of said openings and bore, whereby the bore and opening are adapted to axially align when the nipple is in one position of its adjustment and to move out of such alinement when the nipple is turned from such position relative to the section, and a pen-point and feed-bar disposed in said openings.

13. In a fountain pen, a pen point carrying section, a feed bar and pen point fitted therein, said feed bar having a pin projecting transversely therefrom, and means carried by said section and transversely adjustable relative thereto to cooperate with the section to grip and hold the feed bar and pen point therein, said means having a recess for receiving said pin to cause a turning of the feed bar therewith.

14. In a fountain pen, a pen point carrying section, a feed bar and pen point carried thereby, the feed bar having a pin projecting transversely therefrom and the pen point having a recess receiving said pin, and a member rotatably carried by said section in encircling relation to said feed bar and pen point, said member being operable when turned relative to said section to cooperate therewith to grip the feed bar and pen point and having a longitudinally-extending recess for receiving said pin to effect a turning of the feed bar and pen point therewith.

3. A pen-holder having a pen receiving opening in an end thereof and a part projecting from the opening, a member rotatably carried by the pen-point carrying end of said holder and having a pen-point receiving opening therethrough in register with the holder opening and receiving said part, the clamping surface of one of said part and member being eccentric to the clamping surface of the other.

4. A pen-holder having a pen receiving opening in an end thereof, a member rotatably carried by the pen-point carrying end of said holder and having a pen-point receiving opening therethrough in register with the holder opening, the clamping surface of one of said holder and member being eccentric to the clamping surface of the other.

5. In a fountain pen, a pen point carrying section, a feed-bar projecting therefrom, a pen point mounted on said feed-bar, and means movably carried by said section and operable, when moved relative thereto, to have a camming action on the feed-bar and pen-point to hold them firmly assembled or to release them.

6. In a fountain pen, a pen point carrying part having an opening longitudinally therethrough, a lock member rotatably carried by said part and having an opening therethrough in communication with the part opening, one of said openings being eccentric to the turning axis of said member, and a feed bar and pen point inserted into said opening and gripped therein by a turning of said member from one position relative to said part.

7. In a fountain pen, a pen point carrying part, a feed bar and pen point carried thereby, and means movably carried by said part and operable to cooperate with the part to hold the feed bar and pen point in assembled position therein.

8. In a fountain pen, a pen point carrying a feed bar and pen point carried by said part, and means carried by said part for transverse angular adjustment relative thereto and operable to cooperate with the part to releasably grip and hold the feed bar and pen point in assembled relation in the part.

9. In a fountain pen, a pen point carrying section, a feed bar and pen point carried thereby, and cam-like means carried by the section for angular adjustment relative

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15. In a fountain pen, a pen point carrying section, a feed bar and a pen point assembled therein, and means carried by said section and adjustable relative thereto to vary the pressure by which the pen point is held to the feed bar whereby a variance in the ink feed is effected.

16. In a fountain pen, means forming a pen-point carrying section and having an

opening therein, a feed-bar and a pen-point mounted in said opening, and one of said feed-bar and pen-point having a transverse projection interengaging with a portion of said pen-point carrying section.

In testimony whereof I have hereunto signed my name to this specification.

CHARLES A. LUCK.