C. A. LUCK.

FOUNTAIN PEN.

APPLICATION FILED MAY 21, 1919.

1,336,572.

Patented Apr. 13, 1920.

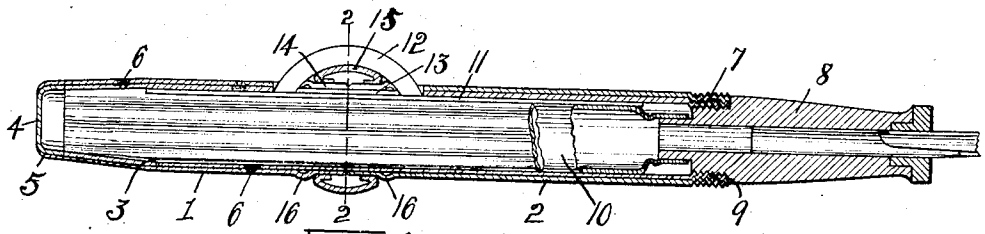

FIG-1-

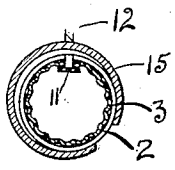

FIG-2-

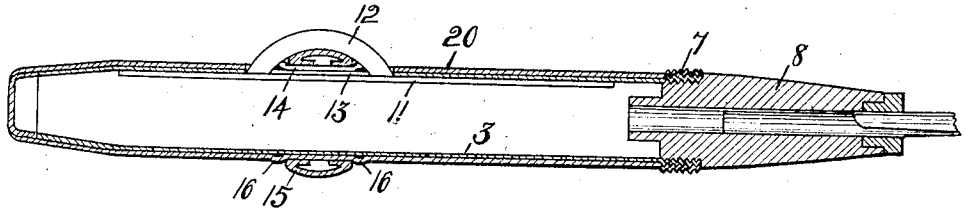

FIG-3

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FOUNTAIN-PEN.

1,336,572. Specification of Letters Patent. Patented Apr. 13, 1920.

Original application filed Januar 22, 1919, Serial No. 272,480. Divided and this application filed May 21, 1919. Serial No. 298,710.

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 Fountain-Pen; 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 to fountain pens, and has for its primary object the pre sion of a novel construction of the barrel thereof adapting it to be made of thin metal or other suitable material in place of the hard rubber now commonly employed in the construction of fountain pen barrels. The invention, however, does not exclude the use of hard rubber but is more particularly directed to a construction which renders the use of metal practicable as a substitute for hard rubber.

A further object of my invention is the provision of simple and efficient means for locking the several sections of the barrel in assembled relation.

The invention is fully described in the following specification, and while, in its broader aspect, it is capable of embodiment in numerous forms, one embodiment thereof is illustrated in the accompanying drawing, in which,—

Figure 1 is a central longitudinal section of a fountain pen embodying the invention with parts in full. Fig. 2 is a cross section on the line 2, 2 in Fig. 1, and Fig. 3 is a central longitudinal section of a slightly modified form of the invention with the compressible ink bag omitted.

This application is filed as a division of the application fied by me January 22, 1919, Serial No. 272,480.

Referring to the drawings, and particularly to Figs. 1 and 2 thereof, 1 and 2 designate the longitudinally alined rear and front end sections respectively, of the external shell or casing of a fountain pen barrel embodying the invention, and 3 the internal reinforcing shell or casing thereof, which shells are tubular in form and may be of thin metal or other suitable material. The internal shell 3 is preferably longitudinally corrugated to stiffen its structure and thereby form a more rigid reinforcement for the outer shell.

The outer end of the rear section 1 is closed by a plug 4, which may be of stamped metal, and is inserted into the section from the inner end thereof and prevented from complete passage therethrough by coaction with the tapered outer end portion of the section and by the inwardly turned end edge 5 thereof. The inner shell 3 is intended to fit closely within the outer shell sections 1 and 2 and is fixedly secured in the rear section 1 by soldering or electric welding at different points, as indicated at 6, or it may be secured within the section 1 in any other suitable manner. The rear end of the shell 3 abuts against the alined inner edge portion of the end closing plug 4 to firmly hold said plug to its seat in the outer end of the section 1. This plug may, however, be soldered or secured in any other suitable manner in the section 1.

The outer shell section 2 has a turning fit on the inner shell 3 and is threaded to the forward end of the inner shell 3 at 7. The threads are preferably rolled in the shell sections 2 and 3 so as to form each section with inner and outer threads, the adjacent threads of the two sections being intended to interengage and the outer thread of the section 2 being provided for engagement with the customary internal thread of an inclosing cap. The engaging threads of the two sections are so disposed as to permit an unscrewing and removal of the outer section 2 from the inner end, of the inner shell or section 3 away from the section 1.

The customary pen point carrying section 8 is threaded into the inner end of the shell 3 and has the shoulder 9 at the base of its thread abutting against the adjacent ends of the inner and outer shells 2 and 3, thus preventing a removal or unscrewing of the shell 2 from the shell 3 until the pen carrying section 8 has been removed from engagement with the shell 3. The usual ink-bag 10 is carried by the inner end of the pen point carrying section 8 and is disposed within the shell 3 to substantially fill the same.

The customary compressing-bar 11 for the

ink-bag is disposed within the shell 3 at one side of the bag longitudinally thereof and is provided intermediate its ends with the outwardly projecting control member 12, which, in the present instance, is of segmental form and projects out through registering slots 13 and 14 in the respective inner and outer shells of the barrel. The slot 14 in the outer shell sections 1 and 2 extends at both sides of the line of division between such sections so that when the member 12 is projected therethrough it prevents a relative turning of the sections 1 and 2 and consequently prevents a removal of the section 2 from the shell 3. The compressing-bar 11 and control member 12 are held in retracted or outwardly disposed position relative to the ink-bag, in the present instance, by a lock-ring 15 of the eccentric split ring type, as in fountain pens of the "Conklin" type, and this ring may be stamped from sheet metal or formed in any other suitable manner. It is evident that the ring 5 projects through the control member 12 and when the split portion of the ring is in register with said member, the member may be compressed. The ring 15, in the present instance, turns within a seat or a guide groove provided in the adjacent end portions of the sections 1 and 2 by the annular ribs or raised portions 16 on said sections. It will be understood that the form of locking means and compressing-bar control disclosed is merely illustrative of the idea and is not intended to limit the invention herein covered to the use of any particular form of compressing-bar control or locking means.

As stated above, the control member 12 of the compressing-bar 11 is intended, when in its normal or outwardly projected position, to perform the additional function of locking the inner shell section 3, together with the rear outer section 1, when attached thereto, and the removable outer shell section 2, in assembled position by reason of the member 12 passing through the slot 13 of the shell 3 and through the slot or notch 14 in the section 2, thereby locking the members 2 and 3 against relative turning movements and preventing a consequent unscrewing of the section 2 from the shell 3. Such unscrewing or removal of the section 2 from the shell 3 may be accomplished, however, when the compressing-bar 11 and its control member 12 are sufficiently depressed within the barrel to withdraw the member 12 from within the slot or notch 14 of the section 2. It is therefore evident, so far as the barrel section locking feature of the member 12 is concerned, that it may be of any other form, suitable for the purpose, than that illustrated, as any outwardly projecting part or control member for the bar 11 might accomplish the same purpose.

The form of the invention illustrated in Fig. 3 differs from that illustrated in Fig. 1 in that the outer shell, which is designated 20, is formed in a single section instead of two sections, and the inner shell 3 is free for longitudinal and turning movements within the entire outer shell. In this form the outer shell 2 is unscrewed outwardly from the inner shell 3 or away from the pen carrying section 8, thus necessitating a positioning of the threads 7 for such purpose.

It is evident that I have provided a simple and cheap construction of pen barrel, which may be of metal or other suitable material; that the sections of the barrel may be quickly assembled; and that the sections of the barrel are locked in assembled relation by the control member of the ink-bag compressing-bar, and may be released by a movement of such control member from its normal position.

It is also evident that if it is desired to make a gold finished barrel, the outer shell may be composed of thin rolled gold or plated, as desired, the inner shell being of sufficient strength and rigidity to reinforce the outer shell against compressing, twisting or bending stresses.

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 without departing from the spirit of the invention as defined in the claims.

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

1. A fountain pen barrel having inner and outer telescoped shell sections forming a barrel for receiving an ink reservoir, and a pen point carrying section, all in detachably threaded engagement.

2. A fountain pen barrel having inner and outer telescoped shell sections in releasable threaded engagement at their inner ends, and a pen point carrying section threaded into the inner end of the inner shell section.

3. A fountain pen barrel having inner and outer telescoped shell sections in releasable threaded engagement, and a pen point carrying section fitted into the inner end of the inner shell section and shouldering against the adjacent end of the outer shell section to prevent a separation of the sections.

4. In a fountain pen, a barrel having inner and outer telescoped shell sections with their inner ends each provided with inner and outer threads with the adjacent threads in engagement and with the outer thread of the outer section adapted to engage a c thread, and a pen point and ink-bag carrying section in threaded engagement with the inner thread of the inner section.

5. In a fountain pen, a barrel having inner and outer telescoped shells in releasable threaded engagement and having openings in their sides adapted to be placed in register, a pen point and ink-bag carrying section fitted into the inner end of the inner section, and ink-bag compressing means having a portion projecting through said opening and operable when in one position of its movement to lock the sections against relative turning movements.

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

CHARLES A. LUCK.