

March 23, 1926.

1,577,646

C. LIVSEY

FOUNTAIN OR RESERVOIR PEN

Filed Feb. 21, 1921

2 Sheets-Sheet 1

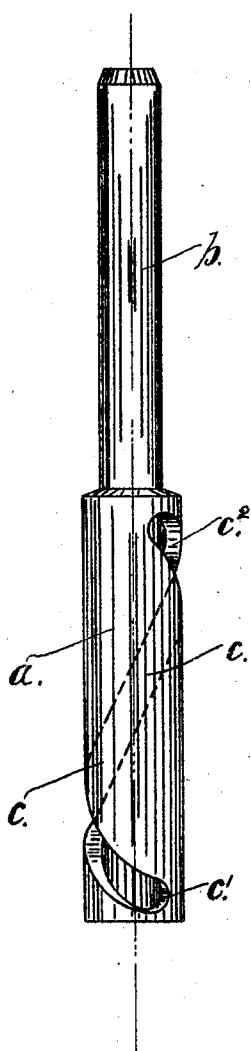


Fig. 1.

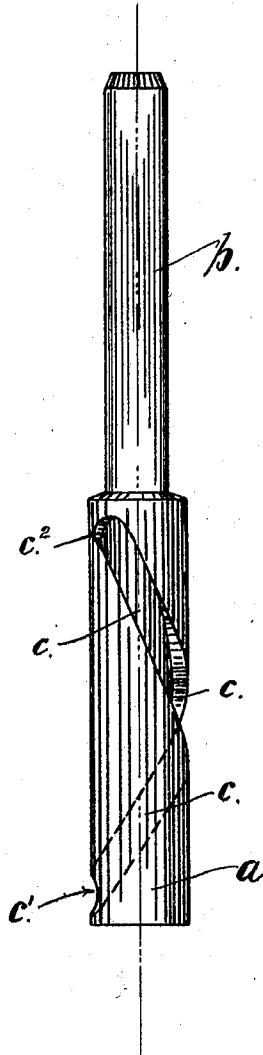


Fig. 2.

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Fig. 4.

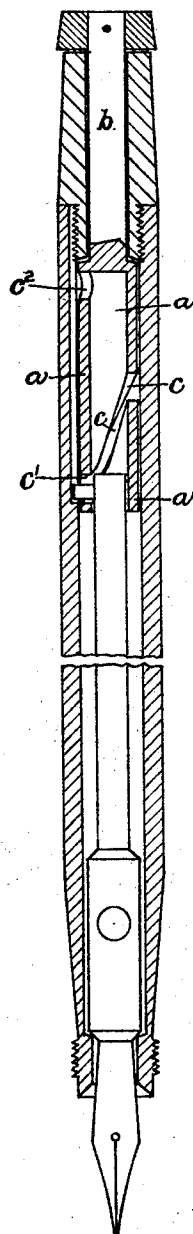
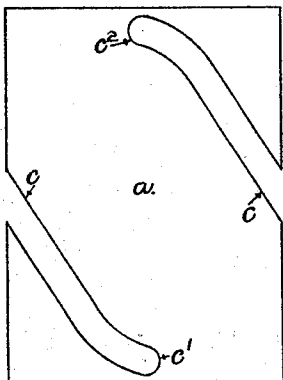


Fig. 5.



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UNITED STATES PATENT OFFICE.

CHARLESWORTH LIVSEY, OF WALLASEY, ENGLAND.

FOUNTAIN OR RESERVOIR PEN.

Application filed February 21, 1921. Serial No. 446,904.

To all whom it may concern:

Be it known that I, CHARLESWORTH LIVSEY, a subject of the King of England, residing at 11 Groveland Road, Wallasey, in the county of Chester, England, have invented certain new and useful Improvements in or Relating to Fountain or Reservoir Pens, of which the following is a specification.

This invention relates to fountain or reservoir pens of the "safety" type, wherein a nib, when not required for use, is contained or housed within a reservoir body or barrel, and is reciprocated through the rotary movement of an external headpiece, or the like, by means of a revoluble helically slotted sleeve or tube through a slot whereof a lateral pin, or the like, secured to a nib-carrying rod or bar projects into a stationary guide or positioning slot and my invention has for its primary object to ensure that said nib may not—when projected and in writing position—be accidentally displaced rearwardly to admit air and cause discharge of ink from the reservoir.

My invention essentially consists in the use or provision of a helical sleeve or tube having a slot of variable or differential pitch, said slot at the lower end, i. e., the end near the nib being of lesser pitch than that at the middle or other portion.

My invention—although not restricted—is particularly applicable to pens in which the "stroke" of the nib is effected through a rotary movement of less than a complete revolution of the head-piece, or the like, as owing to the necessarily comparatively coarse thread of said sleeve or tube-slot there is likelihood of the nib when projected, and subjected to pressure in use, becoming displaced and re-entering the reservoir, but by said variation in the pitch of the spiral of the sleeve slot, said lateral pin of the nib-carrying rod or bar may only be withdrawn from the portion of lesser pitch through the turning of the head-piece by the user of the pen.

If desired, the upper portion of said sleeve or tube-slot may be formed similarly to the lower portion.

I will further describe my invention with

the aid of the accompanying sheet of explanatory drawings, wherein—

Figure 1 is an elevation of the sleeve of a reservoir pen,

Fig. 2 is a similar view showing another position of the reservoir sleeve,

Fig. 3 is a developed view of the slotted sleeve, and

Fig. 4 is a longitudinal sectional view of the fountain pen.

a represents a sleeve and b an integral stem whereto a head or finger piece for rotating the sleeve is secured.

c , c^1 , c^2 denote a helical slot cut in said sleeve a , the pitch of the lower end— c^1 —of said slot being less coarse than that of the middle or intermediate portion— c —, so that when the nib is fully projected and the lateral projection or pin of a nib-carrying rod or bar has, through the revoluble motion of said sleeve— a —entered said slot portion— c^1 —it (the nib) cannot be accidentally pressed inwards, that is, the sleeve must be revolved through the wilful actuation of the head-piece in order to cause the upward travel of said lateral projection and the consequential retraction of the nib.

The pitch of the upper portion c^2 of said slot is also less coarse than that of the middle or intermediate portion— c —, in order to facilitate the starting of the lateral projection of the nib-carrying rod or bar in its movement to propel the nib to writing position.

Due to the quick pitch of the portion— c — of said sleeve slot the stroke of the nib is effected through the rotary movement of less than a complete revolution of the head-piece; but as the motion of the lateral projection of the nib-carrying rod or bar is slowed at the commencement and termination of the pen to "spit" ink in the projection or retraction of the nib is obviated.

What I claim is:—

In a fountain pen of the safety type wherein a nib carrying stem has a lateral projection adapted to engage in and be adjusted by a reservoir sleeve on the stem:— means for causing a variable movement of the nib carrying stem by less than a complete revolution of said sleeve, said means

comprising a spirally slotted sleeve to provide a slot for the lateral projection of the nib carrying stem, said slot having an outer end portion of less pitch than the intermediate portion of said slot and an inner end portion corresponding to the outer end portion of said slot so that actuation of said stem to project a nib is at first slow, then comparatively rapid, and then slow again, with the pitch of the slot in the outer end of said sleeve preventing retraction of the stem during a writing operation. 10

In testimony whereof, I affix my signature
CHARLESWORTH LIVSEY.