

No. 653,818.

Patented July 17, 1900.

G. S. PARKER.
FOUNTAIN PEN.

(Application filed Apr. 9, 1900.)

(No Model.)

Fig. 1.

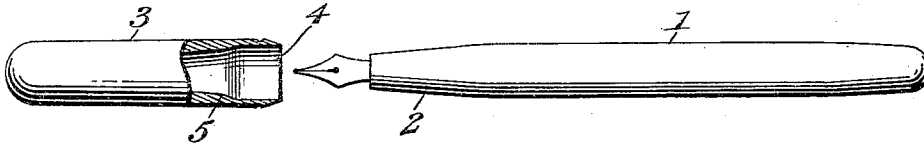


Fig. 2.

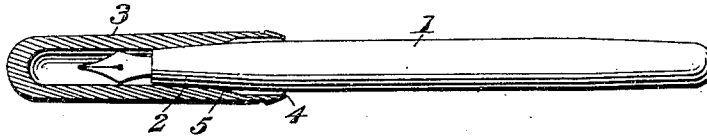
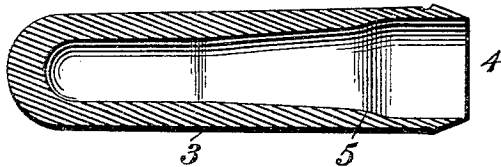


Fig. 3.



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FOUNTAIN-PEN.

SPECIFICATION forming part of Letters Patent No. 653,818, dated July 17, 1900.

Application filed April 9, 1900. Serial No. 12,204. (No model.)

To all whom it may concern:

Be it known that I, GEORGE S. PARKER, a citizen of the United States, residing at Janesville, in the county of Rock and State of Wisconsin, have invented a new and useful Fountain-Pen, of which the following is a specification.

This invention relates to fountain-pens, and has special reference to the joint or closure provided by the cap when fitting upon either end of the holder or barrel, and especially upon the pen-bearing end thereof.

To this end the invention primarily contemplates means whereby the cap shall be greatly strengthened and entirely relieved from the expanding or spreading strain at the open end thereof when forced upon the holder or barrel.

It is now well recognized by fountain-pen manufacturers that the cap is one of the weakest parts of a fountain-pen, inasmuch as it has heretofore been impossible, from a practical standpoint, to produce a fountain-pen cap so constructed as to be free from the great liability to split or break at the open end thereof in the event of an abnormal pressure being applied thereto in fitting the same upon the tapering end portion of the holder or barrel. In those types of fountain-pen caps now upon the market and which are associated with holders or barrels having tapered end portions the same, while variously constructed, some with and some without interior tapered portions, are all adapted to have their open end portions have a direct contacting engagement with the portion of the holder receiving the same, so that the strain on the cap comes at its weakest point—to wit, at the open end thereof—and in those pen-caps which are tapered at and contiguous to their open ends such strain therefore comes at the very thinnest part of the cap. The present invention obviates the objections to the ordinary caps referred to by providing a construction of cap which transfers the binding engagement of the holder with the cap to a point within the latter between its ends, and thus back or away from the open end of the cap, whereby such end is entirely relieved from all danger of breaking. In carrying out this object the in-

vention permits of the strengthening of the cap in a manner which has not heretofore been possible.

With these and other objects in view, which will more readily appear as the nature of the invention is better understood, the same consists in the novel combination and relation of elements hereinafter more fully described, illustrated, and claimed.

The gist of the invention resides in transferring the strain or binding engagement on the cap back or away from the open end thereof, and various formations or constructions may be resorted to for accomplishing this result; but for illustrative purposes there is shown in the drawings one form of construction exemplifying the invention.

In the drawings, Figure 1 is an elevation of a fountain-pen, showing the cap thereof partly in section and in position opposite the pen-bearing end of the holder. Fig. 2 is an enlarged detail sectional view showing the cap fitted upon the pen-bearing end of the holder or barrel, said view exaggerating the relative sizes of the different parts. Fig. 3 is an enlarged sectional view of the cap *per se*.

Like numerals of reference designate corresponding parts in the several figures of the drawings.

In carrying out the invention it is quite unimportant what particular style of holder or barrel may be associated with the cap, and also the specific shape or formation of the latter, providing the parts are so shaped and related as to dispose the interior holder-engaging portion of the cap at a point intermediate the two ends thereof, whereby the wedging strain upon the cap is removed or transferred back or away from the open end of the same. A construction for securing the result referred to is shown in the drawings, and referring particularly to these drawings the numeral 1 designates the holder or barrel of a fountain-pen containing the usual reservoir for the ink and having one or both end portions thereof tapered, as at 2. In this connection it may be observed that the greater majority of fountain-penholders are exteriorly tapered at their pen-bearing sections to insure a close-fitting and liquid-tight clo-

sure or joint between the cap and the holder, and it is at the pen-bearing end of the holder, where the cap is usually very tightly placed in position by the writer and very frequently
 5 is so forcibly fitted upon the holder as to cause the wedging engagement to split or break the cap, and thereby render the same useless. In the present invention the cap
 3, which is to be placed upon the tapered
 10 ends of the holder in the usual way, is designed to have the bore portion thereof at and contiguous to its open end made of a somewhat greater or larger diameter than the external diameter of the portion of the holder
 15 receiving the same, so that when the cap is in place the same for a portion of its length at and inwardly from its open end will not come in close fitting or binding contact with the holder or barrel, and, in fact, may be said
 20 to have no contact therewith, although it will be understood that in the practical manufacturing of the invention the relative differences in the diameter of the open end portion of the cap and the holder or barrel will
 25 be so small as to be unnoticeable and not to detract in the slightest degree from the appearance of the fitting parts.

Besides having the open end portion 4 of the cap of an enlarged diameter it is necessary to make provision for the usual close-fitting or binding engagement between the cap and the holder to retain the former in position. This may be accomplished by utilizing any form of interior seat or shoulder 5,
 35 which is of a less diameter than the open end portion 4 of the cap and is adapted to directly contact with and wedge upon the tapered end portion of the holder upon which the cap is fitted. The interior contracted seat or shoulder
 40 may have any desired taper, and the closed end portion of the cap beyond said seat or shoulder 5 may or may not be tapered without affecting the spirit or scope of the invention; but it is necessary that the seat or shoulder
 45 5 be disposed at a point intermediate the ends of the cap, whereby all of the binding or wedging strain upon the cap will be transferred back or away from the open end thereof, so as to entirely relieve the cap from all
 50 danger of breaking, while at the same time not interfering with the proper fit thereof upon the holder. Furthermore, the intermediate location of the seat or shoulder 5 per-

mits of a greater strengthening of the cap than has heretofore been possible. 55

From the foregoing it is thought that the combination and relation of the parts constituting the present invention will be readily understood by those familiar with the art without further description, and it will be understood that various changes in the form, proportion, and minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention. 60 65

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

1. In combination with a fountain-pen-holder, of a tubular pen-cap having the bore at and contiguous to its open end of a greater diameter than the external diameter of the portion of the holder receiving the same, and means for binding the cap upon the holder without contact of its open end with the latter. 70 75

2. In combination with a fountain-pen-holder, of a tubular cap having the bore at and contiguous to its open end of a greater diameter than the external diameter of the portion of the holder receiving the same and having no contact with the latter, and also provided with an interior engaging portion disposed at a point intermediate its ends and constituting the sole retaining means for the cap. 80 85

3. In combination with a fountain-pen-holder having a tapered end portion, of a cap having the bore at and contiguous to its open end of a greater diameter than the external diameter of the portion of the holder receiving the same and also provided with an interior inclined seat or shoulder disposed at an intermediate point between the ends of the cap and adapted to have a binding engagement with the tapered end portion of the holder to constitute the sole retaining means for the cap without contact of the open end of the latter with the holder. 90 95

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses. 100

GEORGE S. PARKER.

Witnesses:

SILAS HAYNER,
 MAUDE HOWARD.