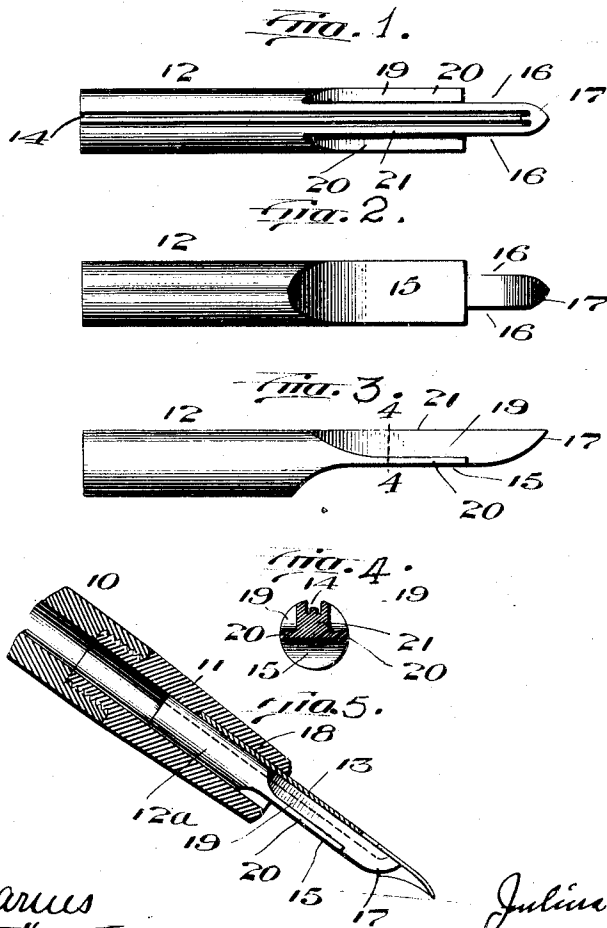


J. L. SCHNELL.
FEED BAR FOR FOUNTAIN PENS.
APPLICATION FILED JUNE 29, 1916.

1,357,083.

Patented Oct. 26, 1920.



Witnesses

Philip E. Barnes
T. C. [unclear]

Inventor

Julius S. Schnell
John W. [unclear]
Att'y.

BY

UNITED STATES PATENT OFFICE.

JULIUS L. SCHNELL, OF ARLINGTON, NEW JERSEY.

FEED-BAR FOR FOUNTAIN-PENS.

1,357,083.

Specification of Letters Patent.

Patented Oct. 26, 1920.

Application filed June 29, 1916. Serial No. 106,615.

To all whom it may concern:

Be it known that I, JULIUS L. SCHNELL, a citizen of the United States, residing at Arlington, in the county of Hudson and State of New Jersey, have invented new and useful Improvements in Feed-Bars for Fountain-Pens, of which the following is a specification.

My invention relates to improvements in fountain pens, and has particular reference to the feed bar thereof which feeds the ink from the reservoir of the pen to the nibs of the pen point.

It has been proposed to use a feed bar which is comparatively narrow relative to the width of the pen point, but considerable difficulty has been experienced in providing narrow feed bars which have sufficient rigidity and strength to maintain the tip of the bar in proper position relative to the pen point. As a narrow feed bar is more or less flexible, there is a tendency for the same to move or spring away from the point which results in the dropping of ink from the feed-bar of the pen point to the paper or surface written upon. Furthermore, the engaging surfaces between the lower surface of the pen-point and the upper surface of the feed bar is relatively small, and, therefore, the pen-point frequently becomes laterally displaced relative to the feed-bar.

It has further been proposed to use a feed-bar which is broad throughout its length in comparison with the body portion of the pen-point, but while this type of feed-bar overcomes the objections to the narrow feed-bar above noted, it presents a number of difficulties. Considerable difficulty is experienced in properly adjusting the pen upon the bar, for should the bar not extend out far enough so that its tip properly engages the nibs of the pen, the ink will not run freely and be properly supplied to the nibs of the pen, while, on the other hand, if the bar extends out too far, it can be seen by the writer and constitutes a source of annoyance. It is often found that, when writing, the edge of the bar will come into contact with the paper or surface written upon, so that blurs occur, or a double line is made, one by the pen-point and the other by the edge of the bar. The space between the pen point and the feed-bar, especially when the former does not snugly fit the latter as closely as it should, forms a pocket in which dust and other sediment are likely to

accumulate, with the result that the channel or feeding groove in the bar becomes clogged and the flow of ink to the pen-point is not uniform.

I overcome the above and other objections which are inherent in the narrow and broad feed-bars by providing what may be termed a combination narrow and broad feed-bar. the bar being relatively narrow at its outer end, that is where it engages the nibs of the pen, so that the outer corners of the bar do not extend laterally to the side of the pen-point, and the feed bar beneath the body portion of the pen-point being relatively broad thereby giving sufficient rigidity and strength to the bar to prevent the outer end thereof from flexing away from the nibs of the point. The feed-bar is of sufficient width to prevent relative displacement between the pen-point and the bar. The outer end of the feed-bar does not overlap or project beyond the sides or tapering edges of the pen-point, so that the annoyance to the writer which is present when the bar extends beyond the edge of the pen-point and the likelihood of making duplicate lines are overcome.

The above and other objects of my invention are obtained by the structure described in the following specification and shown in the accompanying drawings, and wherein—

Figure 1 is a top plan view of my improved feed-bar.

Fig. 2 is a bottom view thereof.

Fig. 3 is a side elevational view of the bar shown in Figs. 1 and 2.

Fig. 4 is a transverse section taken on line 4—4, Fig. 3.

Fig. 5 is a longitudinal section through a portion of a fountain pen showing the improved feed-bar applied thereto and in elevation.

Referring to the drawings wherein like numerals represent like parts in the several views, 10 designates the body portion of a fountain pen having a removable pen section 11 which is in threaded engagement with the body portion of the pen or connected thereto in any suitable manner. The pen section has a longitudinal bore, as is usual, in which is mounted my improved feed-bar 12 carrying a pen point 13 of any suitable construction. It is, of course, understood that the fountain pen and point is shown by way of illustration only, and

that my improved feed-bar is susceptible for use in other types of fountain pen than that illustrated.

The improved bar shown in Figs. 1 to 5, 5 has a channel or feed groove 14 extending longitudinally in its upper surface which groove extends almost to but terminates short of the outer tip of the bar, and which serves as a duct for feeding the ink from 10 the reservoir in the pen holder to the ribs of the pen-point 13. The rear end of the feed bar 12 is round in cross-section, having substantially the same diameter as that of 15 the bore in the removable pen section 11, so that it may fit snugly therein and the frictional engagement between the feed bar and the wall of the bore retains the former securely in place. The under surface of that 20 portion of the feed bar which projects out of the pen section of the holder is cut away as at 15, and the lower surface thus provided is flat substantially throughout its length, but curves upwardly at its outer end 25 toward the point of the pen. The upper surface of the above above the cut-away portion 15 is substantially semi-circular in cross-section and the curvature of the body portion of the pen point 13 corresponds thereto.

The feed bar at its outer end is cut-away 30 for a portion of its length at either side, as at 16, thereby providing a reduced portion or narrow tongue 17 which is of sufficient width to accommodate the feed channel or groove 14, and form a narrow wall on each 35 side of the channel, but which is sufficiently narrow to permit the pen-point to be properly adjusted upon the bar without causing objectionable projections extending laterally beyond the tapering edges of the pen-point. 40 In the structure above described, the circumference of that portion of the feed-bar which is received by the removable pen section 11 is sufficiently large to snugly fit within the bore of said section and maintain 45 the pen point in the groove 18 in said bore. That portion of the feed bar which projects beyond the pen section 11 is of sufficient cross-sectional area to give the requisite stability and strength to the feed bar to 50 maintain the narrow portion 17 against the pen point and enable it to resist pressure upon the pen when writing. Thus, it will

be noted that the feed-bar is divided into two portions, one of the portions being broad so as to overcome objections incident 55 to the use of narrow feed bars as now generally constructed, and the outer portion being narrow or reduced in width to overcome objections incident to the usual broad-feed bar. 60

The semi-circular portion of the feed bar 12 which projects beyond the pen-section 11 is cut-away or rabbeted as at 19 on either side of the channel 14 and on a line with the sides of the reduced portion 17. These cut- 65 away portions extend a slight distance below the depth of the feed-groove 14 leaving a ledge or rib 20 projecting laterally from either side of the central portion 21 of the bar. 70

It will be seen from the structure shown that at the ribs or ledges 20 the bar is of full width and these ribs reinforce the feed-bar and give sufficient rigidity and strength 75 to the outer end thereof to permit the top 17 to resist any pressure which may be exerted upon the pen.

What I claim is:—

A feed bar for fountain pens comprising 80 a body portion to plug a pen barrel; a pen-supporting portion cut away on its under side and having lateral sections on its upper side and on either side of its vertical axis removed, so as to form relatively thin, horizontally extending web-portions on each side 85 of the body; and a nib-supporting portion of less width than said pen-supporting portion extending forwardly from the body portion centrally of and above said horizontally extending web portions with its 90 upper surface lying in the plane of the body portion, and its end extending beyond said horizontally extending web portions, said feed bar having an ink-delivering channel 95 extending from the rear end thereof forwardly along the nib-supporting portion to a point just short of the end of said nib.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

JULIUS L. SCHNELL

Witnesses:

JOHN HAWLEY,
VIOLETTE WAGNER.