

Nov. 6, 1934.

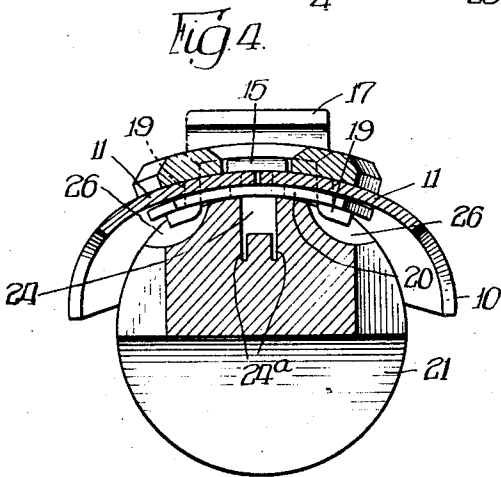
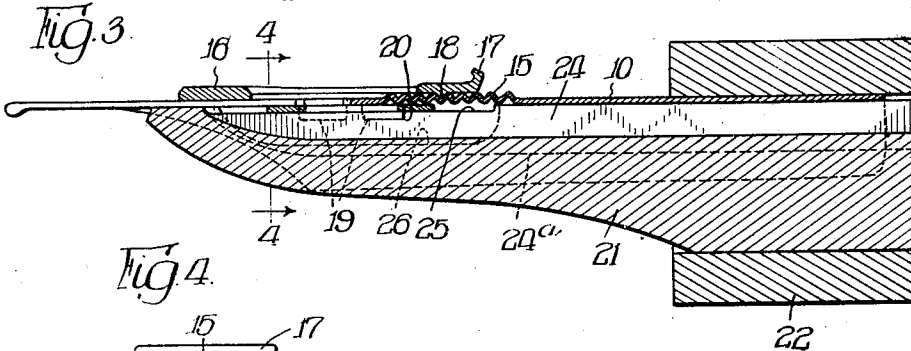
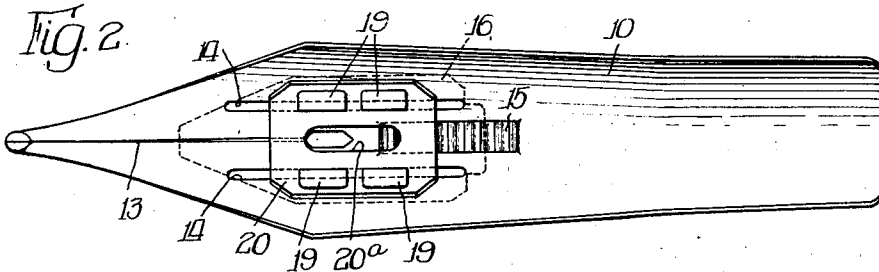
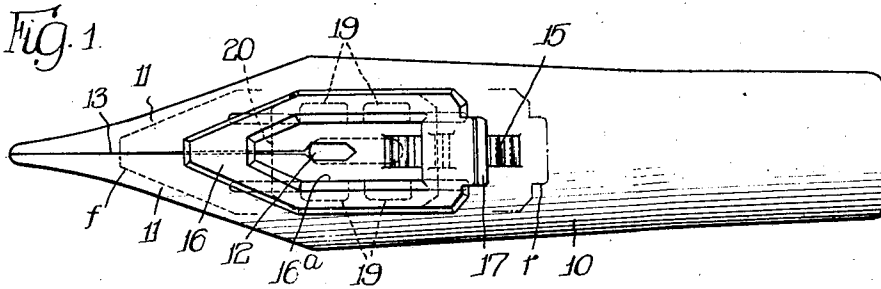
R. BACK

1,980,159

WRITING IMPLEMENT

Filed Jan. 23, 1933

3 Sheets-Sheet 1



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att

Nov. 6, 1934.

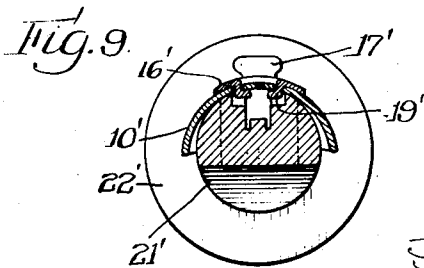
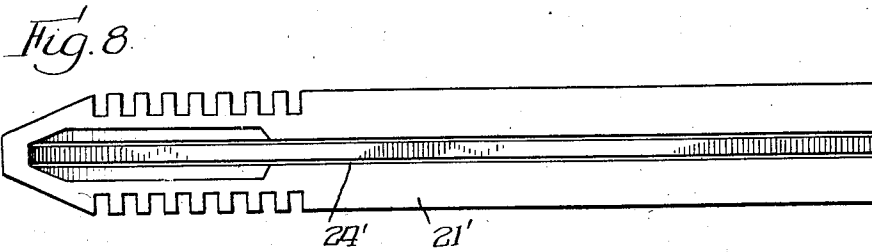
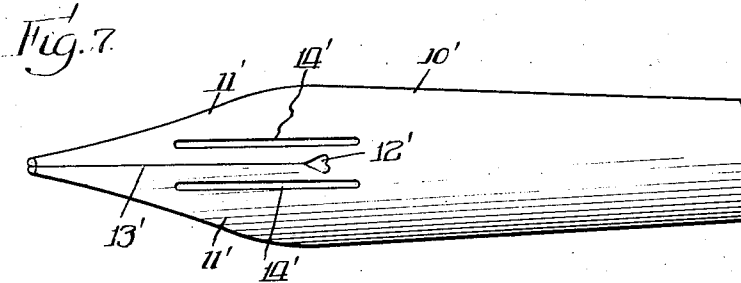
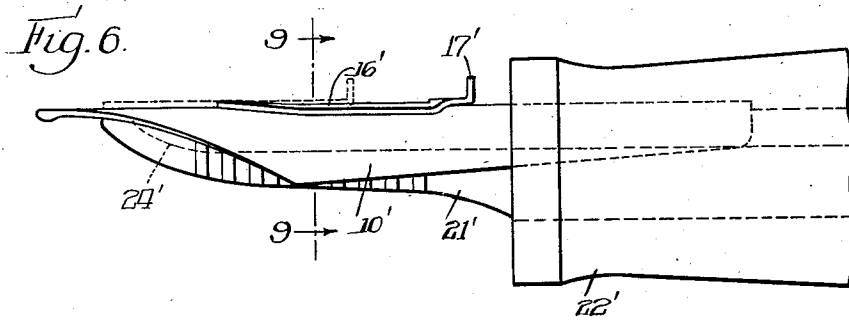
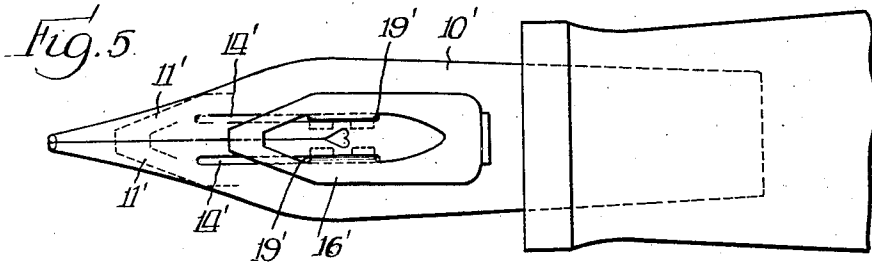
R. BACK

1,980,159

WRITING IMPLEMENT

Filed Jan. 23, 1933

3 Sheets-Sheet 2



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Nov. 6, 1934.

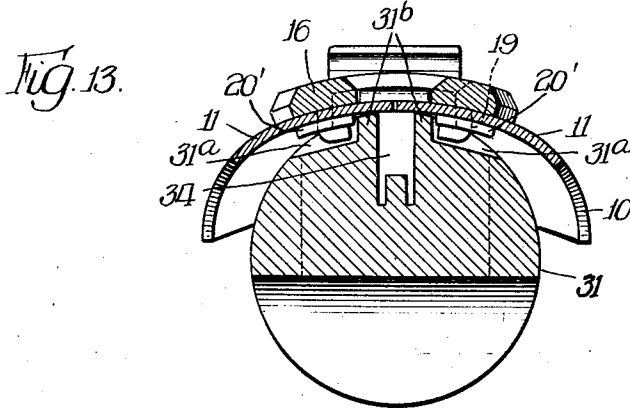
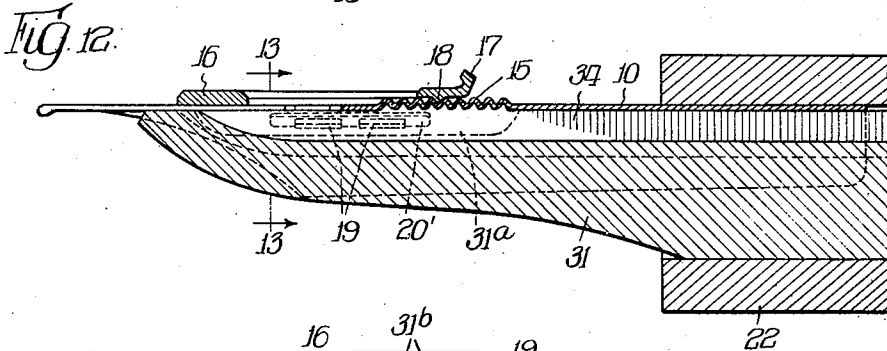
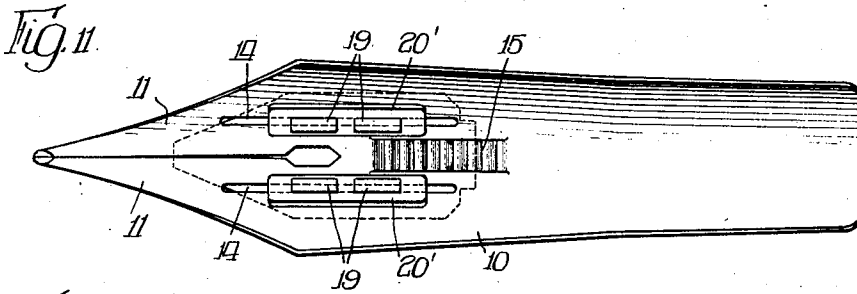
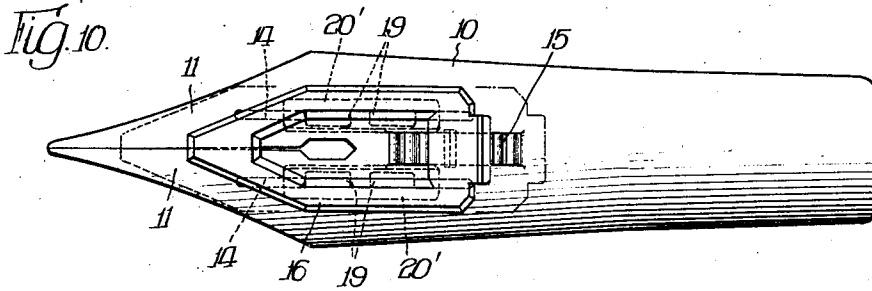
R. BACK

1,980,159

WRITING IMPLEMENT

Filed Jan. 23, 1933

3 Sheets-Sheet 3



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UNITED STATES PATENT OFFICE

1,980,159

WRITING IMPLEMENT

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Application January 23, 1933, Serial No. 653,017

20 Claims. (Cl. 120—42)

This invention relates to pens, and pertains more particularly to fountain pens, though its utility is not limited to use in pens of that character.

5 A general object of the invention is the provision of an improved construction for pen points whereby a selective adjustment or variation of the flexibility of the pen point nibs may be accomplished, so as to adapt the pen to the particular taste or liking of the user, or to different kinds of use or work, or to different kinds or characters of papers and/or inks.

10 Another object of the invention is the provision of an improved fountain pen having features of adjustability and adaptability indicated above.

15 Another particular object of the invention is the provision of a fountain pen having capability of adjustment as indicated above such as to vary, as desired, the feed and flow of ink to the writing tip.

20 Another object is the provision of an improved combination of pen point and feed bar for fountain pens.

25 A further object is the provision of an improved construction for a pen point which is adjustable in respects noted above and in which the proper relationship or association of the nibs is maintained in all of the contemplated adjustments.

30 Another object is the provision of an improved combination of pen point and feed bar with adjusting means operating in conjunction with both to vary the flexibility of the pen point and the ink feeding cooperation of the feed bar and pen point.

35 Yet another object is the provision of an improved construction for an adjustable pen point which is slightly in appearance and which is substantially proof against disarrangement or displacement of the adjusting elements.

40 Other and further objects will be pointed out or indicated hereinafter or will be apparent upon an understanding of the invention or its employment in use.

45 For the purpose of affording a full explanation of the invention, I show in the accompanying drawings, and hereinafter describe, certain structural embodiments of same, but it is to be understood that these are presented by way of illustration and are not to be construed in any fashion calculated to limit the appended claims short of the true and most comprehensive scope of the invention in the art.

50 In said drawings,
Fig. 1 is a top view of a pen point embodying features of the invention;

55 Fig. 2 is a bottom view of the same;

Fig. 3 is a longitudinal sectional view of same assembled with a feed bar and holder;

Fig. 4 is a transverse sectional view on substantially line 4—4 of Fig. 3;

Fig. 5 is a top view of a pen point embodying the invention in modified form, same being shown as mounted in a holder;

Fig. 6 is a side view of the same, showing the pen point as employed in a fountain pen;

Fig. 7 is a top view of the same pen point with the adjusting element removed;

Fig. 8 is a top view of one form of feed bar adapted for use with a pen point of the construction illustrated in Figs. 5 and 6;

Fig. 9 is a transverse sectional view on substantially line 9—9 of Fig. 6;

Fig. 10 is a top view of a pen point illustrating a third form in which the invention may be embodied;

Fig. 11 is a bottom view of same;

Fig. 12 is a longitudinal sectional elevation of the same as assembled in a fountain pen; and

Fig. 13 is a transverse sectional elevation, on somewhat larger scale, on substantially line 13—13 of Fig. 12.

Quite a number of different and varying circumstances may be encountered in the use of a pen. The user may prefer, for ordinary writing, a comparatively flexible pen point, but on certain occasions, as for making fine interlineations or for manifolding with carbon paper, may require a very stiff point. Likewise, when writing on certain kinds of paper, a greater or less flexibility of the pen point and a more copious or less free flow of ink may be desirable than when writing on another kind of paper. Moreover, differences in the character of the inks used will be reflected in differences in the performance of the pen. For example, a thin or light-bodied ink will not admit of as broad or as heavy shading as will a heavier bodied ink, due to their difference in viscosity and capability for bridging the space between the spread nibs. Consequently, a pen which may perform quite satisfactorily under some of such conditions may prove to be quite unsatisfactory or practically inoperative in the face of others.

It is an aim of the present invention to provide a pen which is readily adaptable to a great variety of circumstances and conditions such as those above indicated, in order that its capabilities for successful performance may be as nearly universal as possible. Such a characteristic of a pen finds particular utility in fountain pens, and the invention will be explained with particu-

lar reference to pens of that kind, although it is not limited to use in them.

Described generally, the invention provides a construction wherein the effective flexibility of the pen point nibs may be selectively varied, so that the pen point may be rendered either "soft" or "hard" in selected degrees, and whereby also the volume or rate of flow of ink to the writing point may be selectively varied, either in relationship to the flexibility of the pen point, or otherwise. It also provides a construction wherein such adjustments may be effected without varying the normal, or unstressed relationship of the nibs. It likewise provides a construction wherein, in a fountain pen, such adjustments may be effected and the results thereof satisfactorily obtained, without varying the normal relationship of the pen point and feed bar.

The nature of the invention will be ascertained most quickly, and in more detail, by consideration of the illustrative embodiments represented in the accompanying drawings, which will now be described.

Referring first to the embodiments illustrated in Figs. 1 to 4 inclusive, it will be understood that the reference numeral 10 designates a pen point of suitable resilient material, which is cleft at its forward end to form the collaterally disposed nibs 11. In their normal or unstressed condition the nibs contact each other for some distance at the tip or point, while for the balance of their length they are spaced apart, by a very slight distance, their adjacent marginal faces preferably lying, for the most part, in approximately parallel relationship. The cleft between the nibs merges, at its upper end, into an aperture or pierce 12, which extends for an appreciable distance longitudinally of the pen point and is symmetrically disposed on the longitudinal median line of the same. Excepting at the tip ends of the nibs, the pen point is arched transversely with a curvature which varies as between different transverse sections of the pen point. On opposite sides of its longitudinal median line the pen point is provided with slots 14, the lower or forward portions of which extend for a distance into the nibs and the upper or rearward portions of which extend for a distance into the body of the pen point rearwardly from the pierce 12. The inner margins of the slots 14 are approximately parallel with the longitudinal median line of the pen point. Rearwardly of the pierce 12 the body of the pen point is formed with a knurled or corrugated portion 15, affording a plurality of transversely extending stops or detent seats.

A slide or adjusting member 16 is mounted on the upper side of the pen point, and is of a width materially less than the maximum surface width of the latter. This adjusting member is blanked from a suitable sheet metal and is symmetrical with respect to its longitudinal median line. It is formed with a sizeable aperture 16^a, which is entirely encompassed by the integral material of the adjusting member. The material is swaged to increase its density and beveled at its edges, and is quite stiff both longitudinally and transversely. At its rearward end the adjusting member is provided with an upwardly turned projection 17, and somewhat forwardly of the same is formed with a downwardly projecting tongue 18. Some of the material which is displaced to form the aperture 16^a is left integral with the lateral portions of the adjusting member and turned downwardly to form securing lugs 19 which are parallel longitudinally with the median line of

the adjusting member and are spaced apart transversely the same distance as are the slots 14. The adjusting member is arched transversely so as to conform quite closely to the upper surface of the pen point.

The adjusting member includes a keeper 20 which is formed of quite thin resilient material, and provided with a median slot 20^a which extends a substantial portion of its length, and with lateral slots corresponding to the positions of the lugs 19 of the adjusting member. The keeper 20 is arched transversely on a curvature somewhat sharper than that of the crown portion of the pen point.

The adjusting member is assembled with the pen point by inserting lugs 19 through the slots 14 of the latter and through the lug slots of the keeper, and then bending over the ends of the lugs 19 against the lower surface of the keeper. In such operation the resilient material of the arched keeper is slightly stressed or tensioned, the crown of the keeper bearing closely against the under surface of the pen point, and the lower surface of the member 16 bearing closely on the upper surface of the pen point.

The adjusting member may be slid in either direction longitudinally of the pen point by appropriate pressure exerted upon the projection 17. In such movement of the adjusting member, the lugs 19 slide in the slots 14, the end walls of which impose limits to the extent of longitudinal movement of the adjusting member, and the lugs 19 ride in contact with the surfaces defining the inner margins of the slots 14. In such movement of the adjusting member, the detent 18 escapes from seat to seat of the knurled portion 15, and in any position of the adjusting member functions to resist its movement.

It will thus be observed that the adjusting member may be moved to a forward limit position, indicated by the dotted lines *f*, or to a rearward limit position, designated by the dot and dash lines *r*, or to any of numerous intermediate positions. The farther forward the adjusting member is positioned, the farther will its forward end extend over the nibs and resist upward flexion of them. Likewise, the farther forward the adjusting member is positioned, the farther forward in the slots 14 will the lugs 19 be positioned, and shorten the proportion of the nibs which is susceptible of being flexed laterally outward by writing pressure. The adjusting member thus is operable to vary the effective length of the nibs as regards both their upward and lateral flexion, the rigid forward portion of the member 16 and the rigidly associated lugs 19 constituting effective stops or holding elements for the nibs. Consequently when the adjusting member is located at its forward limit position, the pen point will be hardest or stiffest, and when the adjusting member is located at its rearward limit position, the pen point will have its greatest softness or flexibility.

These adjustments of the adjusting member are accomplished without subjecting the pen point to extraneous stresses tending to change the transverse curvature of the pen point or the relationship of the nibs or induce abnormal tension in the nibs. Consequently, the material in the nibs remains in its normal condition of resiliency at all positions of the adjusting member.

In addition to thus providing for a selective variation of the effective flexibility of the nibs, the adjusting member may afford means for ex-

exercising a variable control of the ink flow to the writing tip.

When used in a fountain pen, the pen point is assembled in cooperative relationship with an appropriate feed bar and ink reservoir. In Figs. 3 and 4 is illustrated a pen point of the construction above described associated with one form of fountain pen feed bar in accordance with the present invention. The feed bar is designated by the reference numeral 21, and together with the pen point is firmly seated in a sleeve or holder 22, which retains the pen point and feed bar in proper relationship such that the forward portion of the feed bar, which gradually decreases in depth as it approaches its terminus, underlies the pen point and extends well forward under the nibs, which lie in contact with its forward end portion. At its upper side the feed bar is provided with a longitudinal channel 24, which communicates at its rearward end with the ink reservoir of the pen, said channel being formed at its bottom with relatively narrow kerfs or grooves 24^a. Within the scope of movement of the keeper 20, the tops of the portion of the feed bar along the groove 24 are slightly lowered, as seen at 25, so as to accommodate the keeper and permit the portions of the pen point forwardly and rearwardly thereof to rest upon the crown portions of the feed bar. At a suitable distance from the channel 24 the feed bar is grooved longitudinally, as at 26, to provide clearance for the lower end portions of the lugs 19. The inner wall portions along the grooves 26 may cooperate with lugs 19 as stops to limit relative rotation of the pen point and feed bar. In properly assembled relationship, the median line of the pen point overlies the median line of the channel 24, so that the pierce 12 and the cleft of the pen point are directly over it.

In the operation of a fountain pen, as the ink flows from the reservoir to the pen point, it is necessary to provide for the admission of air to the reservoir to supplant the ink and maintain the proper air pressure balance upon it. In the construction here illustrated the ink flows by gravity from the ink reservoir downwardly through the lower portion of the channel 24 including the kerfs 24^a and tends to well up in the lower end of the channel below the pen point. From time to time a small bubble of air will pass upwardly through the channel 24 into the ink reservoir, the air finding ingress to the channel 24 through the pierce 12 and through the spaces between the depressed portion 25 of the feed bar and the pen point beyond the upper and lower ends of the keeper 20. In the absence of admission of air to the reservoir, the flow of ink therefrom by gravity occasions a sub-atmospheric pressure within the reservoir which, as it gradually increases, progressively retards the flow of ink from the reservoir, and hence the extent to which the ink will well up in the lower end of the feed bar channel. Ink in the channel 24 and in contact with the pen point feeds by gravity and by capillary adhesion to the writing tip along the lower surface of the nibs and through the cleft.

Ordinarily, writing with a pen in such fashion that substantial flexion of the nibs is produced, will apply to the paper more ink than is required when the writing is accomplished without substantial flexion of the nibs. Hence, in a fountain pen, an ink flow which is adequate for writing with but slight flexion of the nibs may prove inadequate when writing with substantial flexion

of the nibs; and conversely, an ink flow which is requisite for writing, without skipping, with substantial flexion of the nibs may be so copious as to flood the pen when writing without substantial flexion of the nibs, and result in ink dropping from the pen.

By the present invention it is rendered possible to regulate the ink flow in accordance with requirements of the various degrees of effective flexibility of the nibs. In the construction above described this result is obtained in various ways. In one respect, it is obtained by the limitation imposed on the lateral spreading of the nibs by the holding action of the lugs 19. The farther forward the adjusting member is positioned, the shorter will be the proportion of the cleft which is susceptible of opening or widening over the ink channel 24, and hence the less will be the opportunity for the flow of ink to the writing tip by way of the cleft. In another respect, it is accomplished by variation of the extent of surface of the nibs available for contact with ink in the lower end of the ink channel. It will be observed that the farther forward the adjusting member is positioned, the greater will be the area of the nibs covered by the keeper 20, which forms a shield interposed between the nibs and the ink in the lower end of the ink channel. In still another respect, it is accomplished by variation of the direct flow of ink from the feed channel to the writing tip along the under surfaces of the nibs. By observing Fig. 3, it will be seen that when the forward portion of the member 16 is over the forward end portion of the feed bar which rests in contact with the nibs, the nibs will be limited as to their extent of flexion away from said portion of the feed bar, whereas, when the adjusting member is retracted to more rearward positions, the nibs will be allowed progressively increasing range of movement away from the contacting forward end of the feed bar. The positioning of the adjusting member, consequently, varies the admissible flow space which may be occasioned between the feed bar and nibs by upward flexion of the latter. The ink flow regulation also may be accomplished by variation of the air inlet to the ink channel, as in a manner more particularly described hereinafter.

With the inner margins of the slots 14 in approximately parallel relationship, the frictional engagement of the adjusting member with the pen point will in most instances be adequate to hold the adjusting member against being displaced rearwardly by the lateral pressure of the nibs resulting from their tendency to spread or separate laterally when the writing point is pressed on the paper. The provision of the detent or holding means 15 and 18, however, definitely precludes such unintentional rearward displacement of the adjusting member, and at the same time affords an arrangement for definitely positioning the adjusting member at the selected location, thus facilitating the adjusting operation.

In Figs. 5 to 9 is illustrated an embodiment of the invention which differs in certain particulars from that illustrated in the other figures. Here the pen point is designated by the reference numeral 10', the nibs by 11', the pierce opening by 12', the cleft by 13', the slots by 14', the slide of the adjusting member by 16', its manipulating projection by 17', and its lugs by 19'. In this embodiment there is no keeper on the adjusting member, the lugs 19' which extend through and ride in the slots 14' having their

lower end portions turned over into contact with the under surface of the pen point, so that they underlie an appreciable area thereof.

The feed bar 21' is provided with the longitudinal ink channel 24, and in the forward portion of the feed bar this ink channel is somewhat broadened throughout the area in which the lugs 19' may travel between the limit positions of the adjusting member; this for the purpose of accommodating the lugs and permitting the pen point to rest in contact with the crown portions of the feed bar, including the upstanding ledges alongside this widened portion of the ink channel, and the nibs to rest in contact with the upper surface of the tapered forward end of the feed bar. The walls of the widened portion of the ink channel may cooperate with the lugs 19' as positioning guides for the pen point and feed bar.

The slots 14' are thus positioned over this widened portion of the ink channel, and afford inlets for admission of air into the same. The effective area of the inlets thus provided, as well as of that of the pierce 12', may be varied by adjustment of the adjusting member, the effective area of said inlets being reduced progressively as the adjusting member is moved forwardly. Consequently, when the adjusting member is positioned at its forward limit location, the admission of air will be appreciably more restricted than when the adjusting member is at its rearward limit position. Reference has been made above to the influence of the admission of air to the ink reservoir as affecting the feed of ink to the pen point. In a combination having features for varying the admission of air to the ink channel as in the example here given, the feed of ink from the reservoir will, accordingly, be slower when the adjusting member is at a forward position than when it is at a rearward position. In this last described construction, moreover, the adjusting member will function to control variably, in accordance with its location, the feed of ink to the writing tip from the ink channel. In one respect this control is exercised by the limitations imposed by the lugs 19' to the spreading movement of the nibs, in another respect by the interposition of the overturned portions of the lugs 19' between the ink pool and the under surfaces of the nibs, and in a further respect by the limitation of the possible upward flexion of the nibs from contact with the forward end of the feed bar.

A third embodiment of the invention is illustrated in Figs. 10 to 13 inclusive. The pen point 10, having the nibs 11, slots 14 and detent retaining portion 15, is similar to that illustrated in Figs. 1 to 3 inclusive, and the same is true with respect to the slide portion 16 of the adjusting member.

The construction differs from that illustrated in Figs. 1 to 4 inclusive in that the keeper of the adjusting member is formed in two parts, here designated 20', one of said parts accommodating the lugs 19 on one side of the median line of the pen point, and the other accommodating the corresponding lugs 19 on the opposite side of the median line. The lugs are bent over against the lower sides of the members 20', as above described, to secure said members to the sliding member 16 and against the under surface of the pen point.

In this assembly of the parts, the members 20' are spaced apart transversely of the pen point, so that the intervening area of the under surface

of the pen point is left exposed or unobstructed from below. In this construction the keeper members 20', like the keeper 20 of the construction first above described, cooperate with the sliding portion 16 of the adjusting member to reinforce or lend support to the portions of the pen point along the slots 14, and serve to distribute, over a considerable area of the pen point, such pressure as may be imparted to it by the lugs 19 when upward pressure is exerted on the forward end of the sliding portion 16 by upward stressing of the nibs.

As seen in Figs. 12 and 13, the space between the keeper members 20' affords an area in which the lower surface of the pen point and nibs may rest directly in contact with the crown portion of the feed bar along the opposite sides of the ink channel. In Figs. 12 and 13 the feed bar is designated by the reference numeral 31, and the ink channel by the reference numeral 34, and it will be observed that longitudinal grooves 31^a are provided in the upper portion of the feed bar, extending parallel with the ink channel, and at a suitable distance therefrom, for accommodation of the keeper members 20' and the lower lug portions 19. Thus rib-like portions 31^b are provided along the ink channel, and the under surface of the pen point and nibs rests in contact with the crowns of these ribs. The nibs likewise rest in contact with the land, or upper surface, of the feed bar beyond the lower end of the ink channel. Consequently, when the nibs are flexed upwardly to any given extent, they will not be so far removed from the top of the ink channel walls as they would be in the construction illustrated in Fig. 3, wherein the ink channel walls are initially spaced somewhat from the lower surface of the pen point in the offset or lower portions 25. This feature, which is present in both forms illustrated in Figs. 9 and 13, is of advantage in maintaining consistency of ink feed from the ink channel onto the lower surface of the pen point when the nibs are considerably flexed and an ink of relatively low viscosity is used.

The construction illustrated in Figs. 10 to 13 is effective in obtaining a variable control of ink feed to the writing point, this result being obtained by the effectiveness of the adjusting member in limiting the extent to which the nibs may be flexed upwardly and outwardly by writing pressure.

From the foregoing it will be apparent that the present invention provides an adjusting arrangement whereby the flexion of the nibs in lateral or outward directions and upward direction may be limited or controlled variably as desired. The limitation or control conjointly of both upward and lateral flexion of the nibs is important in respect to obtaining definitely and with certainty the desired variations in the "softness" or "hardness" of the pen point. It will be observed that in the constructions above described there is a definite cooperation between the elements which restrict outward flexion of the nibs and those which restrict upward flexion of the nibs, as the lugs 19 serve to restrain the sliding member 16 against upward flexion, and the member 16 supports the lugs 19 against outward displacement. There is also a definite cooperation between the restriction against outward flexion of the nibs and the restriction against upward flexion, for the reason that, though the forward portion of the adjusting member may be raised somewhat if sufficient upward pressure is exerted on the nibs, the restric-

tion imposed by the lugs 19 to outward flexion of the nibs imposes resistance to flexion of them upwardly. Consequently, a much more definite control of the nib flexion is obtained by imposing restrictions to both their outward flexion and their upward flexion, and this is particularly noticeable when the restriction to upward flexion of the nibs is imposed on them at a point appreciably in advance of that on which the restriction to outward flexion is imposed. Moreover, as has been referred to above, by this conjoint limitation of upward and outward flexion of the nibs, the desired variation in the flexibility of the pen may be obtained without imposing extraneous stresses or tension on the pen point, thus retaining the nibs in condition to act with their natural or normal resiliency, within the limitations imposed by the adjusting member, no matter what the position of the latter.

20 What I claim is:

1. In a pen, in combination, a pen point having collaterally disposed resilient nibs, an adjusting member mounted on the pen point for cooperation with the nibs to restrain them against flexion, said adjusting member being adjustable to various relationships with the nibs, and step-by-step escapement detent means which is effective at all positions of the nibs to retain said adjusting member in selected position.

2. In a pen, in combination, a pen point having collaterally disposed resilient nibs, said pen point being provided with longitudinally extending slots disposed one on each side of its longitudinal median line, and a relatively stiff adjusting member having lugs slidably engaging in said slots and a portion extending from said lugs toward the writing tip of the pen point for contact with the upper surfaces of the nibs.

3. In a pen, in combination, a pen point having collaterally disposed resilient nibs, an adjusting member shiftable longitudinally of the pen point and having portions for cooperation with the nibs to hold them against outward flexion throughout a variable portion of their length, and detent means for retaining the adjusting member in selected position.

4. In a pen, in combination, a pen point having collaterally disposed resilient nibs provided with longitudinal slots, an adjusting member slidable longitudinally on top of the pen point and having lugs extending through said slots, and a keeper slidable longitudinally on the under surface of the pen point and connected to said lugs.

5. In a pen, a combination as specified in claim 4 and wherein the slots are on opposite sides of the longitudinal median line of the pen point, and the keeper is connected to said lugs on both sides of said line.

6. In a pen, in combination, a pen point having collaterally disposed resilient nibs, and an adjusting member having portions for engagement with the unflexed nibs at selective positions longitudinally thereof to vary the proportion of the nibs susceptible of outward flexion, said adjusting member being connected to the pen point and adjustable longitudinally thereon to different effective positions without inducing strains in the pen point.

7. In a pen, in combination, a pen point having collaterally disposed resilient nibs provided with longitudinal slots, and an adjusting member having portions extending through said slots and portions bearing upon substantial areas of the upper and lower surfaces of the pen point ad-

acent said slots, said adjusting member being shiftable longitudinally of the pen point to vary the proportion of the nibs susceptible of outward flexion under writing pressure.

8. In a pen, in combination, a resilient pen point, an adjusting member movable longitudinally thereon to effect variation of the effective flexibility of the pen point, said pen point and adjusting member being provided with detent means affording a step-by-step escapement cooperation between them in the longitudinal movement of the latter.

9. In a fountain pen having a feed bar, the combination of a pen point associated with the feed bar to receive ink therefrom and conduct it to the writing point, and an adjusting member movable longitudinally of the pen point to effect variation of the ink feed to the writing point, said pen point and adjusting member being provided with detent means affording a step-by-step escapement cooperation between them in the longitudinal movement of the adjusting member.

10. In a pen, in combination, a pen point having collaterally disposed resilient nibs provided with longitudinal slots, and an adjusting member movable longitudinally of the pen point and having projections engaging in said slots to retain portions of the nibs against outward movement under writing pressure and parts bearing upon the upper surface of the pen point along the outer sides of said projections.

11. In a pen, in combination, a pen point having collaterally disposed resilient nibs provided with longitudinal slots, and an adjusting member movable longitudinally of the pen point and having portions engaging in said slots to retain parts of the nibs against outward movement under writing pressure and parts for bearing engagement with the lower surface of the nibs along opposite sides of the slots.

12. In a pen, in combination, a pen point having collaterally disposed resilient nibs provided with longitudinal slots, and an adjusting member movable longitudinally of the pen point and having portions engaging in said slots to retain parts of the nibs against outward movement under writing pressure and parts in front of and behind said portions bearing upon the upper surface of the pen point between the slots.

13. In a fountain pen, in combination, a longitudinally grooved feed bar, a pen point overlying said feed bar, and an adjusting member cooperating with the pen point and movable longitudinally thereof, said adjusting member having portions arranged to travel in the grooved portion of the feed bar and adapted for cooperation with the latter as positioning guides for the pen point and feed bar.

14. In a pen, in combination, a resilient pen point having at its forward end nibs which are separated by a cleft and having an aperture at the rear end of the cleft, and an adjusting member mounted on the pen point and slidable longitudinally thereof to various positions to impose variable restriction to flexion of the nibs, said pen point and adjusting member being provided with detent means disposed rearwardly from said aperture for retaining the adjusting member in selected position of adjustment.

15. In a pen, in combination, a pen point having collaterally disposed resilient nibs and longitudinal slots disposed on opposite sides of its median line and extending into the nibs, an adjusting member mounted to slide longitudinally on the pen point for cooperation with the nibs to im-

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pose variable restriction to their flexion, said adjusting member including portions extending through said slots and a keeper connected to said portions below the pen point and extending forwardly and rearwardly from said portions.

16. A pen point having collaterally disposed nibs provided with longitudinal slots, an adjusting member slidably mounted on top of the pen point, and a keeper slidable on the under surface of the pen point, said adjusting member having rigidly associated lugs extending through said slots and turned over against the under side of the keeper.

17. In a pen, in combination, a pen point having a medial cleft and collaterally disposed nibs, and an adjusting member having portions for lateral retaining abutment with parts of the nibs to retain said parts against separating under writing pressure, said adjusting member being movable to various positions longitudinally of the pen point without varying the tension of the nibs, to vary the proportion of the nibs susceptible of outward flexion.

18. In a pen, a pen point having outwardly flexible resilient nibs and a longitudinal cleft therebetween, said nibs being provided with engaging elements disposed in parallel relationship with the cleft, and an adjusting member having engaging elements interengaging with those of the nibs to

retain portions of the nibs against outward flexion under writing pressure, said engaging member being slidable in each direction longitudinally of the pen point to shift the engagement of said engaging elements without varying the tension of the nibs.

19. In a pen, in combination, a pen point having a medial cleft and collaterally disposed resilient nibs, said nibs being provided with slots having their inner margins extending parallel longitudinally of said nibs, and an adjusting member mounted on the pen point and having rigidly associated elements for cooperation with margins of the slots to retain portions of the nibs against spreading under writing pressure, said adjusting member being movable longitudinally of the pen point to position said elements at various locations within the length of the slots.

20. In a pen, in combination, a pen point having collaterally disposed resilient nibs provided with longitudinal slots, and a comparatively inflexible adjusting member mounted to slide longitudinally on the upper surface of the pen point and having portions engaging in said slots to retain parts of the nibs against outward movement under writing pressure and parts for bearing engagement with the upper surface of the pen point ahead of and behind said portions.

ROBERT BACK.

30	105
35	110
40	115
45	120
50	125
55	130
60	135
65	140
70	145
75	150