

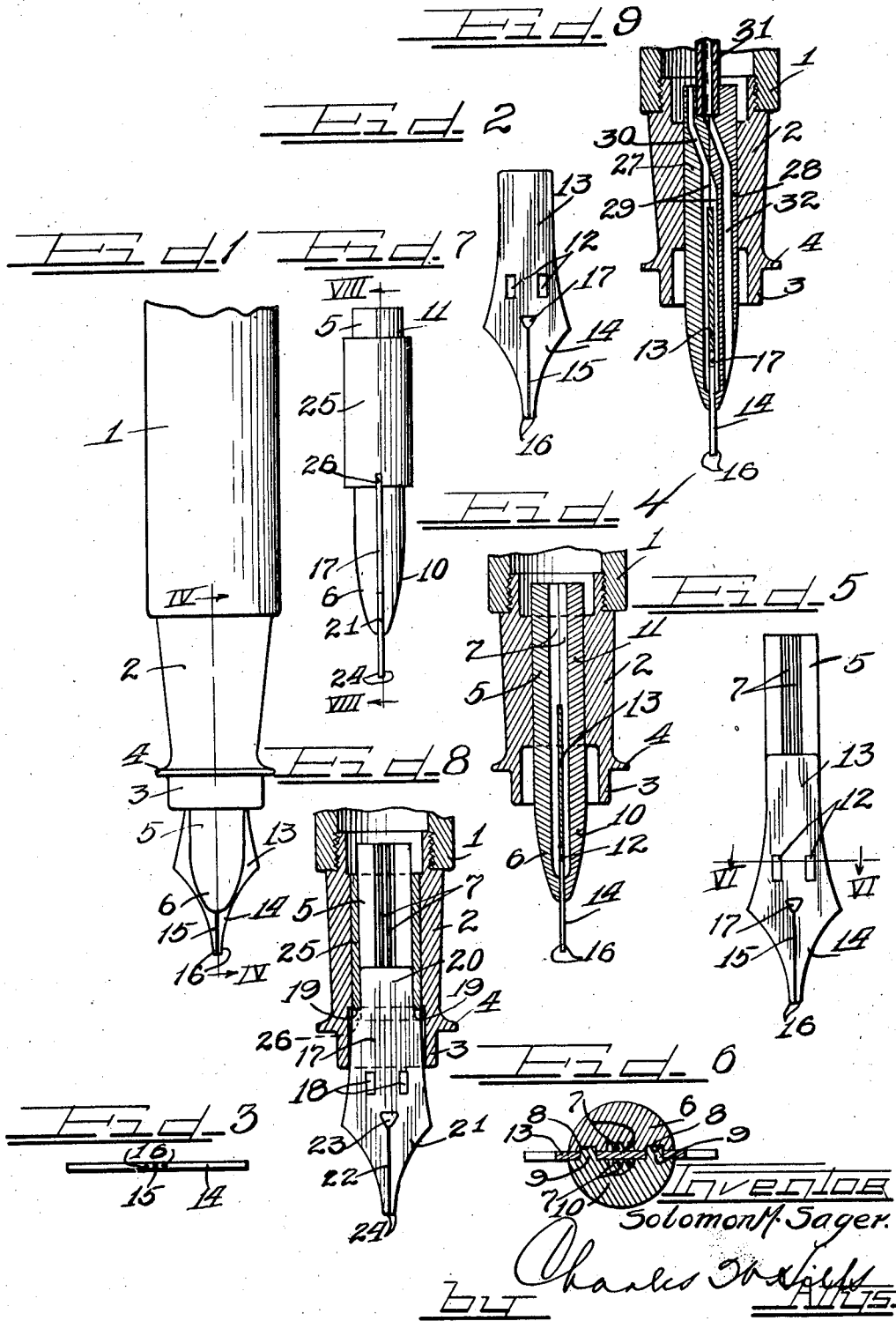
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FOUNTAIN PEN

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FOUNTAIN PEN

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5 Claims. (Cl. 120-50)

This invention relates to an improved fountain pen and more particularly a writing unit including interlocking feed bar members between which a two-way flat pen point is interlocked for insertion with the feed bar members into the section of a fountain pen.

It is an object of this invention to provide a fountain pen with a flat two-way pen point.

It is also an object of this invention to provide a fountain pen with a flat two-way pen point constructed to be interlocked between feed bar members engageable in the fountain pen section.

It is a further object of this invention to provide a fountain pen with a feed bar of the split type, constructed to lockingly interfit with a flat two-way pen point which when engaged in an ink supply holder with the feed bar can be used to write with from both sides of the pen point tip.

It is furthermore an object of this invention to provide a fountain pen with an apertured flat two-way pen point which is lockingly engaged in a split feed bar member engageable in the fountain pen section, said feed bar adapted to supply ink to either side of the flat pen point depending upon which side of the pen point nibs are being used to write with.

Another object of the invention is to provide a fountain pen with an improved writing unit consisting of male and female feed bar members adapted to lockingly interfit with one another and with a two-way flat pen point, to hold the pen point against slidable movement in the feed bar which is so constructed that ink may be fed to either side of the pen point, thereby permitting the opposite sides of the flat pen point to be selectively used for writing.

It is an important object of this invention to provide a writing pen consisting of a flat mounting shank which terminates at one end in a flat split head portion which is tapered to provide a two-way writing tip permitting either side of the pen point tip to be used for writing.

Other and further important objects of this invention will be apparent from the disclosures in the specification and the accompanying drawing.

The invention (in a preferred form) is illustrated in the drawing and hereinafter more fully described.

On the drawing:

Figure 1 is a fragmentary elevational view of a fountain pen barrel and section having mounted therein an improved sectional bar and a flat

two-way pen point embodying the principles of this invention.

Figure 2 is an enlarged elevational view of the two-way flat pen point removed from the fountain pen.

Figure 3 is an enlarged bottom end view of the pen point.

Figure 4 is a vertical detail section taken on line IV-IV of Figure 1.

Figure 5 is an elevational view of the pen point and one section of the feed bar, the other feed bar section being removed.

Figure 6 is an enlarged transverse detail section taken on line VI-VI of Figure 5 showing both feed bar sections in place and interlocked with the pen point.

Figure 7 is a side elevational view of a modified form of writing unit for a fountain pen, showing the lining sleeve of the fountain pen section engaged around the feed bar members and interfitting with the shank portion of the pen point.

Figure 8 is a sectional view taken on line VIII-VIII of Figure 7 showing the modified form of writing unit engaged in a fountain pen section.

Figure 9 is a fragmentary sectional view similar to Figure 4 but disclosing another modified form of a sectional feed bar, lockingly engaging the flat two-way pen point, with the feed bar designed for use in a fountain pen of the plunger filling type and including an ink intake tube connected with the feed bar.

As shown on the drawing:

The reference numeral 1 indicates a fountain pen barrel having secured in one end thereof a section 2 the outer end of which is provided with an extension sleeve or collar 3 which serves as an ink guard member extending to the outside of a peripheral stop bead or flange 4.

Projecting through the chambered ink guard 3 and up through the section 2 in tight frictional engagement with the inner wall thereof is an improved writing unit embodying the principles of this invention. The writing unit comprises a split or multiple sectioned ink feed bar means consisting of a female feed bar 5 semi-cylindrical in shape and terminating at one end in a tapered finger portion 6. The female feed bar 5 is flat on its inner side and said flat surface is provided with a plurality of parallel ink feed grooves 7 as clearly illustrated in Figure 5. The inner flat side of the finger or tip end 6 of the female feed bar 5 is provided with a pair of spaced recesses or sockets 8 for the removable reception of a pair of teeth or lugs 9. The teeth

or lugs 9 are integrally formed on the flat inner side of the finger or tip portion 10 of a semi-cylindrical male feed bar section 11. The inner flat side of the male feed bar 11 is also provided with a plurality of parallel ink feed grooves 7.

The female and male feed bar members are adapted to be engaged with one another with the flat inner surfaces contacting each other to permit the teeth or lugs 9 of the male feed bar to project into and seat in the notches 8 of the female feed bar. As clearly illustrated in Figure 6, the teeth or lugs 9 of the male feed bar project through openings 12 provided in the shank portion 13 of a flat metal pen point the shank portion 13 of which flares outwardly and has integrally formed on the enlarged end thereof a tapered tip 14. The tip portion 14 of the pen point is provided with a longitudinal slot 15 which splits the tip of the pen point to provide a pair of writing nibs 16 on each side of the tip of the pen point to make the same a two-way or multiple type pen point. As clearly illustrated in Figures 2 and 5, the inner end of the pen point slot 15 terminates in an opening or pocket 17 provided for the purpose of receiving ink from the feed bar feed grooves 7 which are positioned on opposite sides of the flat pen point shank 13 so that ink from the fountain pen barrel may be fed to either side of the two-way pen point to a selected pair of the writing nibs 16 thereby making it possible to write from either side of the tip portion of the improved pen point.

In the modified form of writing unit illustrated in Figures 7 and 8 of the drawing, a pair of interfitting male and female feed bar sections 5 and 11 similar to those illustrated in Figures 4 and 6 are positioned with the flat sides thereof abutting one another so that the tapered finger portions 6 and 10 engage against opposite sides of a flat metal pen point comprising a shank or body portion 17 having a pair of openings 18 therein for the reception of the teeth or lugs 9 formed on the inner flat side of the male feed bar member 11. As clearly illustrated in Figure 8 the outer end of the pen point shank 17 has the corners thereof cut away to provide stop shoulders 19 positioned on opposite sides of a reduced tail piece 20. Integrally formed on the widened end of the pen point shank 17 is a pen tip 21 which is flat and lies in the same plane as the flat shank portion of the pen point. The tapered tip 21 of the pen point is provided with a longitudinally disposed slot 22 the inner end of which terminates in a pocket or opening 23 for receiving ink from the feed groove 7 of the feed bars 5 and 11 positioned on opposite sides of the pen point and interlocked therewith. The pen point slot 22 divides the tapered end of the tip 21 to form a pair of writing nibs 24 on each side of the writing tip of the flat pen point to make the same a multiple or two-way pen point.

For the purpose of holding the feed bars and the pen point associated with one another a sleeve 25 is engaged over the semi-cylindrical shank ends of the feed bars to hold the same clamped together in locking engagement with the flat pen point. One end of the sleeve 25 is provided with a pair of diametrically opposite notches 26 into which the shoulder portion 19 of the shank portion of the pen point seat to hold the retaining sleeve 25 against rotation with respect to the feed bar unit. As illustrated in Figure 7 the feed bar members interlocking with the flat pen point, and the sleeve 25 engaged over the feed bar mem-

bers and interlocking with the pen point form a writing unit which is adapted to be tightly inserted into the section 2 of the fountain pen similar to the arrangement illustrated in Figure 8.

Figure 9 illustrates a modified form of a writing unit consisting of a two-way pen point and a sectional or split feed bar constructed for use in a plunger filling type of fountain pen equipped with an ink intake tube. In this type of writing unit the pen point is constructed identical with the pen point illustrated in Figure 2 and like parts are numbered accordingly. The pen point is clamped between a female feed bar member 27 and a male feed bar member 28 which lockingly interfit one another similar to the arrangement of the feed bar members illustrated in Figure 6. The male feed bar member has teeth or lugs 9 which project through openings in the flat pen point and engage in recesses provided in the inner flat side of the female feed bar member 27. Each of the feed bar members 27 and 28 is provided with one or more ink feed or supply grooves 29 positioned on opposite sides of the shank 13 of the pen point. The upper ends of the ink feed grooves 29 converge and connect up with a single ink supply groove 30 formed in the female feed bar member 27 and having the end thereof terminating in the end surface of the feed bar member 27 and in communication with the ink supply chamber of the fountain pen barrel 1. The abutting upper or inner ends of the feed bar members 27 and 28 are provided with an axial pocket or opening in which the lower or intake end of an ink intake tube 31 of the fountain pen is engaged. For the purpose of feeding ink into the fountain pen the male feed bar member 28 is provided with an ink intake passage 32 the inner end of which communicates with the passage in the ink intake tube 31 while the lower end of the passage 32 opens through one side of the outer end portion of the male feed bar member 28.

When the writing end of the fountain pen of the type illustrated in Figure 9 is inserted into a quantity of ink and the fountain pen filler mechanism is operated ink is drawn upwardly through the intake passage 32 and into the ink intake tube 31 from which it enters the ink supply chamber of the fountain pen barrel 1. When the fountain pen is used to write with, ink from the fountain pen barrel is discharged through the outlet passage 30 and flows into the ink feed grooves 29 of the feed bar members 27 and 28 to supply ink to the writing nibs 16 on one side of the tip portion of the pen point which is being used to write with. The pen point is of the two-way type hereinbefore described so that the nibs 16 on either side of the tip of the pen point may be selectively used for writing purposes.

From the foregoing description it will be noted that an improved writing unit has been developed which is adaptable for use in various types of fountain pens, said writing unit consisting of a two-way flat pen point which is lockingly engaged between grooved ink feed bar members which interfit one another and also interfit the pen point to hold the same in position and prevent removal thereof from the fountain pen when the feed bar members are engaged in a fountain pen section. The interlocking arrangement of the feed bar members and the pen point insures a positive fool-proof positioning of the pen point with respect to the feed bar members and the ink supply grooves thereof. Attention is also called to the

fact that the flat two-way pen point may have the writing nibs on opposite sides of the tip portion thereof formed to provide a fine writing tip on one side of the pen point and a heavier writing tip on the opposite side of the pen point tip.

It will of course be understood that various details of construction may be varied through a wide range without departing from the principles of this invention and it is therefore not the purpose to limit the patent granted hereon otherwise than necessitated by the scope of the appended claims.

I claim as my invention:

1. A fountain pen writing unit comprising interfitting male and female feed bar members, and a flat two-way pen point clamped between the feed bar members and including means formed on the male feed bar member and projecting through the pen point to seat in the female feed bar member

2. A fountain pen writing unit comprising interfitting feed bar members, a pen point clamped therebetween, and a sleeve engaged around the feed bar members and notched at one end to receive the pen point and hold the same against rotation with respect to said sleeve.

3. A fountain pen writing unit comprising a recessed feed bar member, a second feed bar member having projections thereon fitting into the

recesses of said first mentioned feed bar member, and a flat apertured two-way pen point engaged between the feed bar members and having the projections of the second feed bar member projecting through the pen point apertures.

4. A fountain pen writing unit comprising a recessed feed bar member, a second feed bar member having projections thereon fitting into the recesses of said first mentioned feed bar member, and a flat apertured two-way pen point engaged between the feed bar members and having the projections of the second feed bar member projecting through the pen point apertures, and a sleeve means engaged over the feed bar members to hold the same clamped against opposite sides of the two-way pen point.

5. A fountain pen writing unit for insertion into a pen section, said unit comprising a plurality of interfitting feed bar members, a flat two-way writing pen point clamped between the feed bar members and interfitting therewith, and a notched sleeve engaged around the feed bar members with the notches of said sleeve having portions of the pen point seated therein to hold the pen point locked against rotation with respect to said sleeve.

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