Sept. 6, 1932. S. M. SAGER 1,876,151

PEN POINT

Filed Nov. 1, 1929

Fig. 1

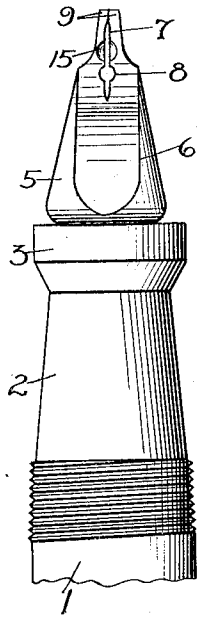


Fig. 2

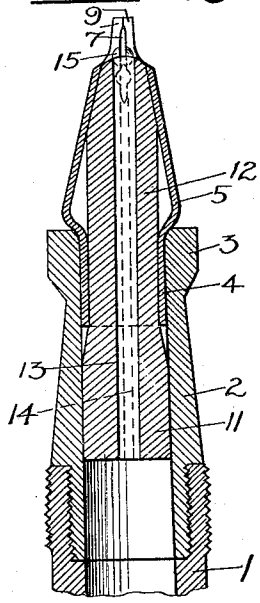


Fig. 4

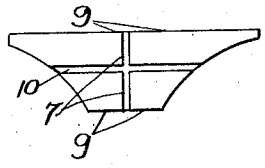


Fig. 5

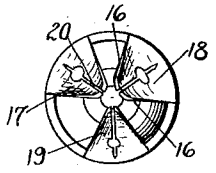


Fig. 6

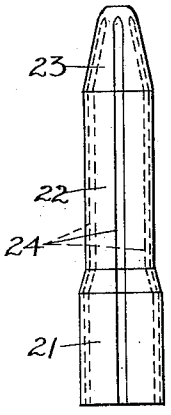


Fig. 7

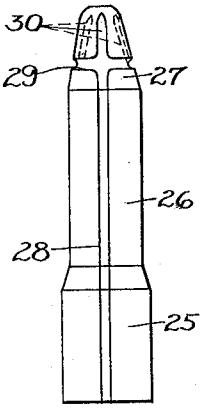


Fig. 8

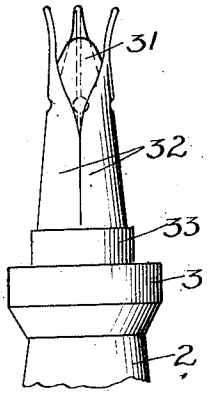
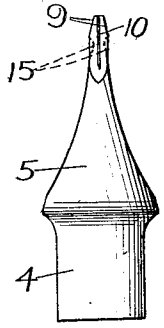


Fig. 3



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UNITED STATES PATENT OFFICE

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PEN-POINT

Application filed November 1, 1929. Serial No. 403,947.

Bookkeepers, clerks and many other people who are required to do a great deal of writing very often find it necessary to use fountain pens or ordinary pens having fine, medium or coarse points to permit gradation in writing. To permit this gradation in writing, it has been found necessary to have a number of different fountain pens or penholders, each of which is equipped with a different type of pen point.

To obviate the above condition and to facilitate the work of bookkeepers, clerks and other persons required to do different grades of writing, this invention has been devised to provide an improved pen having a plurality of points of either the same or different sizes affording a pen permitting any selected one of the multiple points thereof to be used independently of the remaining points to permit fine, medium or coarse writing to be produced.

It is an object of this invention to provide a scribing instrument pen having a plurality of points adapted to be used independently of each other.

It is also an object of this invention to provide an improved scribing instrument pen comprising a plurality of points adapted to be connected together at their shank portions to permit all of the points to be mounted as a unit on a penholder.

It is a further object of this invention to provide an improved pen having a plurality of writing points of either the same or different sizes and adapted to be mounted in a holder over a multiple-type feed bar to permit the pen points to be independently supplied with ink.

It is furthermore an object of this invention to provide an improved pen comprising a plurality of writing points joined by a cylindrical shank adapted to be mounted in a penholder to completely close the space around the pen feed bar to obviate leakage of ink out of the feed end of the pen holder.

Still another object of this invention is to provide a multiple-point pen adapted to be constructed of a unitary tubular member formed to provide a supporting shank and having one end of the tube drawn out and formed to provide a plurality of scribing points adapted to be used independently of one another and adapted to be supplied with ink from a common feed bar over which the multiple pen point is adapted to be engaged when inserted in the end of a pen holder or barrel to close the space between the holder and the shank of the multiple type pen to obviate leakage of ink out of the end of the holder.

It is an important object of this invention to provide an improved multiple-type pen point and feed bar for use therewith, said pen point having a tubular shank and a plurality of writing points of either the same or different sizes adapted to be used independently of one another and adapted to be independently fed from the feed bar.

Other and further important objects will be apparent from the disclosures in the specification and drawing.

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

On the drawing:

Figure 1 is an enlarged fragmentary elevational view of one end of a fountain pen barrel having mounted therein an improved multiple-type pen point embodying the principles of this invention.

Figure 2 is a longitudinal sectional view of the device illustrated in Figure 1, and illustrating the position of the feed bar with respect to the multiple pen point.

Figure 3 is a side elevation of the multiple-type pen point illustrated in Figure 1 and removed from the barrel or holder.

Figure 4 is a greatly magnified end view of the tip end of the multiple-type pen point illustrated in Figures 1 to 3, inclusive, and illustrating two pen points of different sizes adapted to be used independently of one another.

Figure 5 is a greatly magnified view of the tip end of a modified form of multiple-type pen point arranged to provide three different writing points.

Figure 6 is an elevational view of a fountain pen feed bar having three feed grooves and adapted to be used in connection with a

three point writing pen of the type illustrated in Figure 5.

Figure 7 is an elevational view of a modified form of feed bar for a fountain pen and arranged to permit independent feeding of each of the pen points with which the feed bar may be associated.

Figure 8 is an enlarged fragmentary elevational view of one of a fountain pen barrel having a modified form of multiple type pen point engaged over a feed bar and inserted by means of a retaining ring within the mouthpiece of the barrel.

As shown on the drawing:

The reference numeral 1 indicates a fountain pen barrel provided with a nozzle 2 at one end terminating in a mouthpiece or collar 3. The mouthpiece 3 of the fountain pen barrel is adapted to have removably engaged therein an improved multiple type fountain pen embodying the principles of this invention and comprising a cylindrical shank 4 constructed of metal and having one end thereof drawn out to provide a tapered head 5 provided with two oppositely positioned depressions 6. The head 5 has the outer end thereof restricted to provide a tapered end piece, each of the opposite sides of which is provided with a longitudinally disposed slot 7 having an enlargement at 8. The outer end of the slot 7 is reduced in size and continues downwardly to the end of the tip so that each side of the tapered tip is slit to provide two nibs 9. The tapered tip end of the multiple-type pen is also cut or slit transversely to provide the slot 10, thereby separating the two sets of pen nibs 9 to provide a substantially fine point writing pen on one side and a heavy or coarse writing point on the opposite side, with both of said pen points adapted to be fed from the interior, as hereinafter more fully described.

Engaged in the nozzle end 2 of the fountain pen barrel is a removable ink feed bar of the multiple-feed type and comprising a shank 11, a reduced body portion 12 of a diameter sufficient to snugly fit through the cylindrical shank 4 of the multiple type pen point, as clearly illustrated in Figure 2. The outer end of the body portion 2 is tapered to fit into the tapered interior of the head portion 5 of the multiple-type pen and project to a point substantially beyond the enlarged hole 8 of the pen point slot 7. The feed bar is provided with an axial passage 13 to permit ink to be drawn into the barrel 1 in certain types of fountain pens. It will, of course, be understood that the axial passage 13 may be omitted or may be provided in other portions of the feed bar, depending upon the type of fountain pen in which the feed bar is used.

The improved feed bar is provided with two longitudinally positioned exterior pen point ink feed passages 14, which are disposed opposite one another and extend throughout the entire length of the feed bar and afford independent feed passages for ink from the interior of the barrel 1 to the respective pen points formed on the end of the pen head portion 5. By this arrangement, it will be seen that the improved multiple-type pen point is engaged over the outer end of the multiple-type feed bar and both members are inserted into the nozzle end of the fountain pen barrel so that the tubular shank portion 4 of the improved multiple-type pen is tightly engaged around the reduced body portion 12 of the bar and to the inside of the mouthpiece 3 of the nozzle 2 to completely close the space surrounding the feed bar. This novel arrangement obviates leakage of ink from the fountain pen barrel around the exterior of the shank portion 11 of the feed bar, so that ink from leakage does not accumulate around the outer end of the mouthpiece 3 at the end of the barrel, which is the cause of so much trouble in the ordinary type of fountain pen where only a single pen point is used and where the shank of the pen point extends only around a portion of the body of the feed bar.

In order to provide a convenient arrangement whereby the tip end of the two pen points may be slightly separated to facilitate grinding and finishing of the same, the outer portion of each of the depressed surfaces 6 of this multiple-type pen point is provided with an indent 15 which tends to spring the ends of the pen points outwardly away from one another a slight degree.

Figure 5 illustrates a modified form of multiple-type pen point in which a metal tube is shaped to provide a shank portion similar to the portion 4 illustrated in Figure 3 and a head portion corresponding to the head portion 5 of Figure 3 but with said head portion drawn outwardly and tapered to provide three depressions similar to the depressions 6 illustrated in Figure 1. The tapered end of the modified head portion is then cut to provide three converging slots 16 positioned 120° apart and forming three pen points 17, 18 and 19, each of which is provided with a longitudinally positioned slot 20, to provide a pair of pen nibs to permit ink to be fed to the tips of the pen points. The ink feed slots 20 are similar to the slots 7 illustrated in Figure 1.

It will thus be seen that Figure 5 illustrates the extreme tapered end of a multiple pen point which includes three separate pen points of different sizes, with said pen points having the head portion thereof integrally connected and integrally formed on a tubular shank similar to the arrangement illustrated in Figure 3. If preferred, the three pen points illustrated in Figure 5 may all be of the same size, so that, if any of the points is broken or injured, one of the remaining two points may be used.

Figure 6 illustrates an elevational view of a feed bar of the multiple-feed type adapted for use with the three pen point arrangement illustrated in Figure 5. The multiple form of feed bar comprises a shank 21 having integrally formed thereon a body portion 22 of reduced diameter, the outer end of which is tapered to form a feed head 23. The exterior of the feed bar is provided with three longitudinally positioned ink feed grooves 24 positioned 120° apart and extending from the end of the shank 21 longitudinally through the entire length of the body portion 22 and then along the tapered head 23 to substantially the end thereof. The three-way pen illustrated in Figure 5 is adapted to be engaged over the feed bar illustrated in Figure 6, similar to the arrangement shown in Figure 2, after which the shank end of the feed bar is projected into the nozzle of a fountain pen barrel, with the cylindrical shank of the multiple-type pen positioned around the body portion 22 of the feed bar and within the mouthpiece 3. This arrangement prevents ink from the interior of the barrel from leaking out between the inner wall of the nozzle 2 and the exterior wall of the shank portion 21 of the feed bar.

Figure 7 illustrates a modified form of feed bar for a multiple-type pen point. This modified form of feed bar comprises a shank 25 having integrally formed thereon a body portion 26 of reduced diameter and a tapered head 27 formed on the outer end of the body portion 26. A single longitudinally disposed feed groove 28 is cut longitudinally in the exterior wall of the shank 25 and the body portion 26 and extends a short distance into the tapered head 27, where it communicates with a circular ink-distributing groove 29. The outer end of the tapered head of the feed bar is provided with three auxiliary or tributary ink-distributing grooves 30 positioned 120° apart, with the inner ends of said grooves communicating with the ink-distributing circular groove 29. This arrangement permits ink from the interior of a fountain pen barrel to be carried out through the single feed groove 28 into the distributing circular groove 29, from which the ink may be distributed to any one of the auxiliary grooves 30 leading to a particular one of the pen points of the multiple-type pen illustrated in Figure 5.

Figure 8 illustrates a modified form of multiple-type pen point adapted to be engaged over a multiple-type feed bar 31. In this case, the multiple-type pen point comprises a plurality of separate pen points 32 shaped to fit around the feed bar 31 and having the shank portions thereof clamped around the feed bar by means of a ring or sleeve 33 which is adapted to project into the mouth of the mouthpiece 3 of a fountain pen nozzle or barrel to hold the various pen points properly associated with the multiple-type feed bar which is constructed with a number of feed grooves corresponding with the number of pen points, so that each pen point may be individually fed when in use.

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

I claim as my invention:

1. The combination with a pen-holder, of a unitary multi-point pen supported thereby having the pen point arranged for independent use, and a unitary multiple type feed bar engaged in said holder and projecting into the multi-point pen for feeding ink independently to each of the pen points.

2. The combination with a pen-holder, of a multiple-point one piece pen removably engaged in the end thereof, with the points arranged for use independently of one another, and unitary means in said holder and pen for feeding ink independently to each of the pen points.

3. A pen point comprising a continuous tubular shank, a tapered head portion having slots in the outer end thereof dividing the end of the tapered head portion into a plurality of pen points spaced in radiating relation.

4. A pen point comprising a tubular shank, and a plurality of radially spaced pen points integrally formed thereon and adapted to be used independently of one another.

5. A pen point comprising a tubular shank, one end of which is drawn outwardly to provide a tapered head which is slotted at the outer end thereof to provide a plurality of independently usable pen points finished to different sizes.

6. A pen point comprising a shank having a plurality of independently usable pen points of different sizes integrally formed thereon in similarly directed longitudinal relation.

7. A scribing device comprising a tubular shank, a tapered head integrally formed thereon, and a plurality of pen points integrally formed at the outer end of said head and radially separated to permit independent use thereof.

8. The combination with a fountain pen barrel, of a multi-point pen removably engaged in the end of said barrel and closing the mouth thereof to obviate leakage of ink from the barrel, and a one piece multiple feed bar in said multi-point pen and projecting into the barrel and having tributary grooves for independently feeding ink to the different points of said pen.

9. The combination with a unitary multi-point pen, of a unitary multiple type feed bar engaged therein and having a plurality of feed grooves provided therein, one for each of the pen points.

10. The combination with a multiple-type one piece feed bar, of a plurality of pen points positioned therearound, and means for holding the plurality of pen points properly positioned to permit the same to be individually supplied with ink from the common feed bar and used independently of the remaining points.

11. The combination with a multi-point pen, of a feed bar removably engaged therein and having a plurality of feed grooves in the outer surface thereof, one for each of the points of the pen.

12. The combination with a pen holder, of a multiple-point pen engaged in the end thereof with the points spaced radially and extending in similarly directed longitudinal relation to permit independent use of the points.

In testimony whereof I have hereunto subscribed my name at Chicago, Cook County, Illinois.

SOLOMON M. SAGER.