June 18, 1957 D. H. LEHR 2,796,047

BROAD STROKE PEN

Filed Oct. 11, 1956

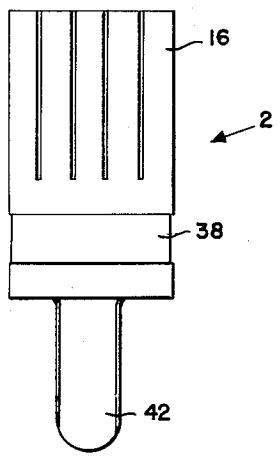


FIG. 1.

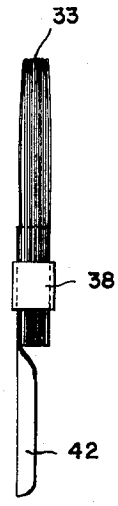


FIG. 2.

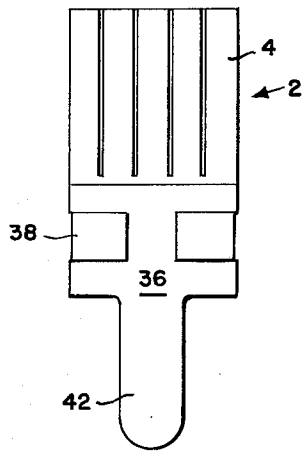


FIG. 3.

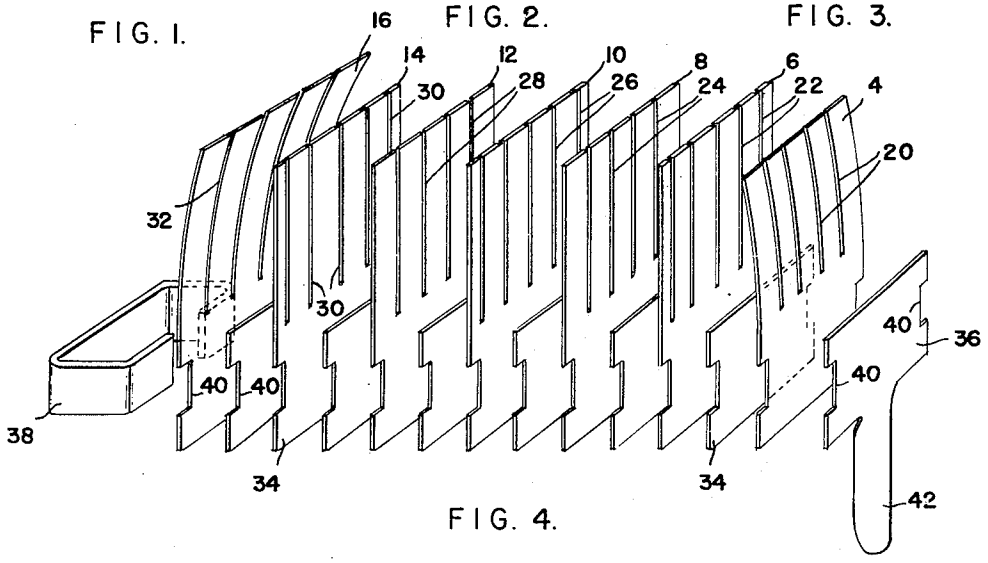


FIG. 4.

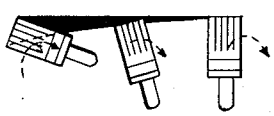


FIG. 5.

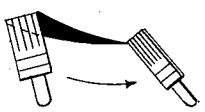


FIG. 6.

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BROAD STROKE PEN

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5 Claims. (Cl. 120—111)

This invention relates to a pen and, more particularly, a broad stroke pen. The pen in accordance with this invention has particular utility, for example, in commercial lettering. It is particularly advantageous in that it provides an even flow of ink which results in a stroke of controlled width irrespective of inequalities of hand pressure. This is in marked contrast to a conventional lettering brush. Further, it is sufficiently flexible so as to facilitate the lettering from a broad line to a narrow line.

It is therefore the broad object of this invention to provide a pen suitable for the formation of a stroke of controlled width and which has a superior ink flow characteristic.

It is a further object of this invention to provide a pen which can letter from a broad line to a narrow line.

These and other objects of this invention will become apparent on reading the following description in conjunction with the drawings in which:

Figure 1 is a front elevation of a pen in accordance with this invention;

Figure 2 is a side elevation of the pen of Figure 1;

Figure 3 is a rear elevation of the pen of Figure 1;

Figure 4 is an exploded view of the pen of Figure 1;

Figure 5 illustrates the manipulation of the pen of Figure 1 from a broad stroke to a fine line;

Figure 6 shows an alternative way of manipulating the pen in Figure 1 from a broad stroke to a fine line.

As shown in the figures, a pen 2 in accordance with this invention has a plurality of thin resilient leaves 4, 6, 8, 10, 12, 14 and 16 of spring metal which are provided with parallel slots 20, 22, 24, 26, 28, 30 and 32, respectively, leading upwardly from the writing end 33 of the pen a substantial distance. The slots in each leaf lie opposite a solid portion of the adjacent leaf or leaves. As illustrated, the slots in each leaf lie substantially opposite the center line of the fingers formed by the slots in the adjacent leaf or leaves. The end leaves 4 and 16 are set to curve inwardly at their lower ends with the lower edges abutting against the adjacent leaves.

By way of example, the metal used for the leaves may be spring steel, stainless steel, brass, copper or zinc. It is preferred to employ at least two different metals in forming the leaves so that adjacent leaves will be of different metals. For example, a preferred embodiment is where leaves 4, 8, 12 and 16 are formed of stainless steel and leaves 6, 10 and 14 are formed of brass. However, any two or more different spring metals can be employed. The use of different metals results in a pen having highly superior freedom of action which is of particular value as the length of use increases.

It is preferred to employ leaves having a minimum length of 1" and to have the length of the slots extend a substantial distance from the writing end of the pen towards the head of the pen preferably a distance at least 50% of the length of the leaves.

The adjacent leaves are separated by spacers 34, preferably of metal, which lie opposite the unslotted portion of the leaves. The assembly of leaves and spacers is secured to a head plate 36 by means of a band 38. The leaves, spacers and head plate 36 are each provided with

side cutout portions 40 for the reception of band 38 which is clamped into the position shown in Figures 1 through 3.

Plate 36 is provided with a curved shank 42 which is adapted to be secured in a conventional pen holder which is not illustrated.

In operation the pen 2 is dipped into ink to a depth approximately equal to the length of the slots. The space between the leaves and the slots act as a reservoir for the ink and the ink feeds down to the working edge of the pen primarily through the slots.

Figure 5 illustrates the formation of a relatively broad stroke and manipulation of the pen through approximately 90° to form a very thin line. Figure 6 illustrates going from a broad stroke to a thin stroke by flexing the pen so that only a small portion of the working edge of the pen is bearing on the paper.

It is not desired to be limited except as set forth in the following claims.

What is claimed is:

1. A pen comprising a plurality of resilient leaves, each leaf being provided with a plurality of substantially parallel slots extending for a substantial distance from the writing end of the pen towards the head of the pen, the slots of adjacent leaves being staggered with respect to each other, spacers lying between the non-slotted portions of adjacent leaves, and means to secure said leaves and said spacers together into a single assembly.

2. A pen comprising a plurality of resilient leaves, each leaf being provided with a plurality of substantially parallel slots extending for a substantial distance from the writing end of the pen towards the head of the pen, the slots of adjacent leaves being staggered with respect to each other, spacers lying between the non-slotted portions of adjacent leaves, and means to secure said leaves and said spacers together into a single assembly, the outer leaves in the assembly being curved inwardly.

3. A pen comprising a plurality of resilient leaves of spring metal, each leaf being provided with a plurality of substantially parallel slots extending for a substantial distance from the writing end of the pen towards the head of the pen, the slots of adjacent leaves being staggered with respect to each other, spacers lying between the non-slotted portions of adjacent leaves, and means to secure said leaves and said spacers together into a single assembly, the outer leaves in the assembly being curved inwardly.

4. A pen comprising a plurality of resilient leaves of spring metal, adjacent leaves being of different metals and each leaf being provided with a plurality of substantially parallel slots extending for a substantial distance from the writing end of the pen towards the head of the pen, the slots of adjacent leaves being staggered with respect to each other, spacers lying between the non-slotted portions of adjacent leaves, and means to secure said leaves and said spacers together into a single assembly.

5. A pen comprising a plurality of resilient leaves of spring metal, adjacent leaves being of different metals and each leaf being provided with a plurality of substantially parallel slots extending for a substantial distance from the writing end of the pen towards the head of the pen, the slots of adjacent leaves being staggered with respect to each other, spacers lying between the non-slotted portions of adjacent leaves, and means to secure said leaves and said spacers together into a single assembly, the outer leaves in the assembly being curved inwardly.

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