

R. P. DE VAULT.

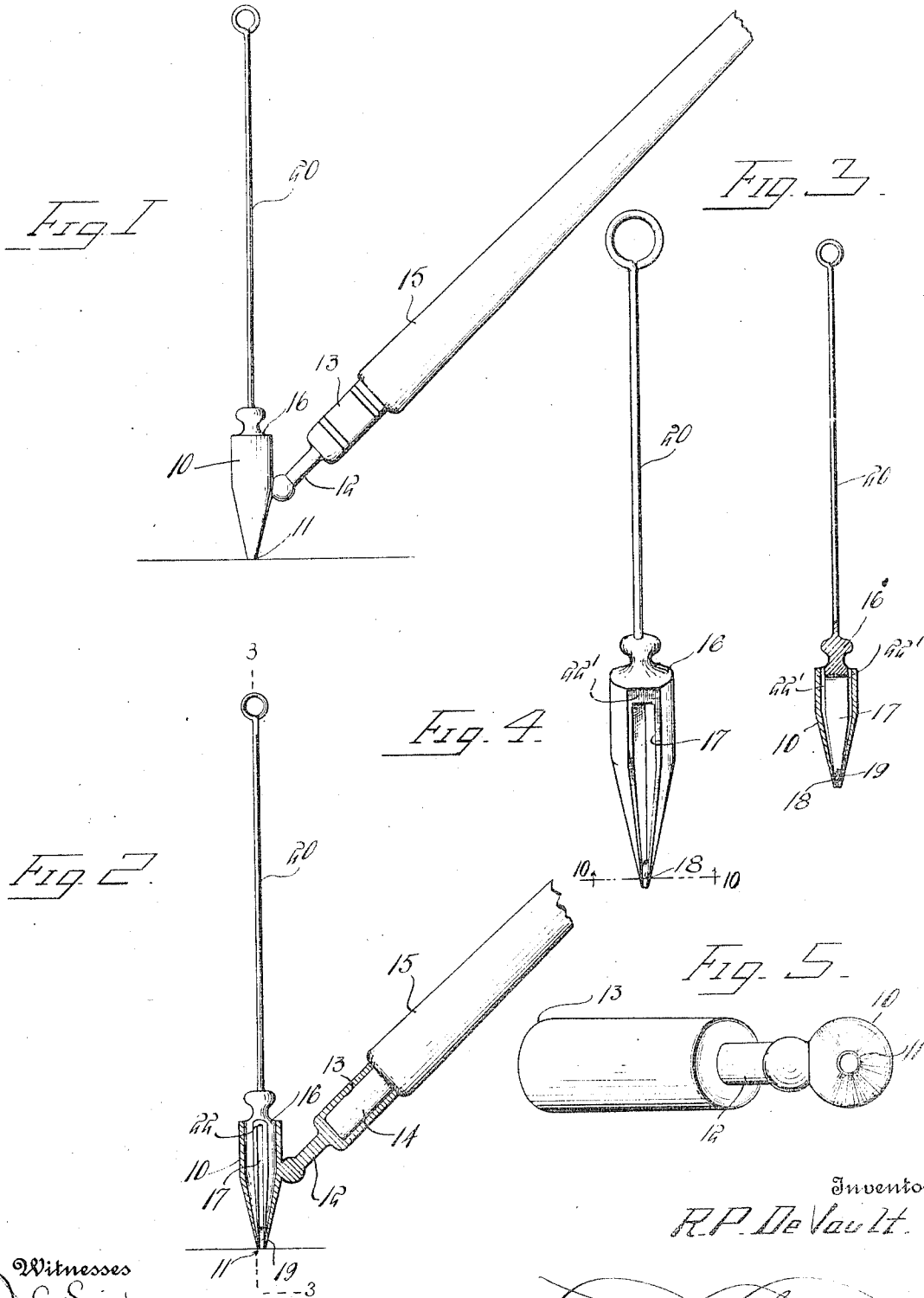
PEN.

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1,037,215.

Patented Sept. 3, 1912.

2 SHEETS—SHEET 1.



Witnesses
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2 SHEETS—SHEET 2.

Fig. 6.

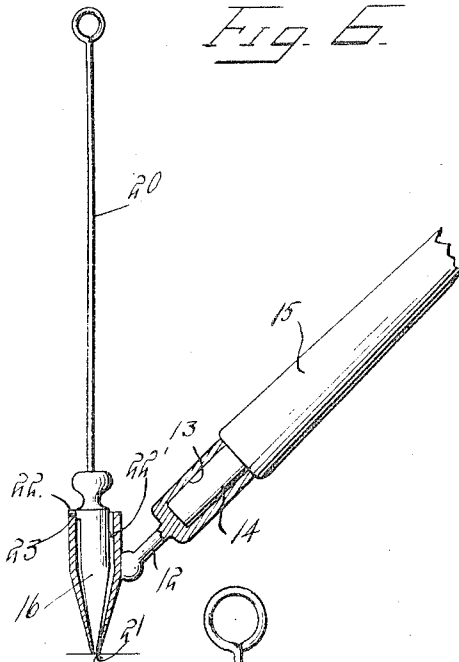


Fig. 7.

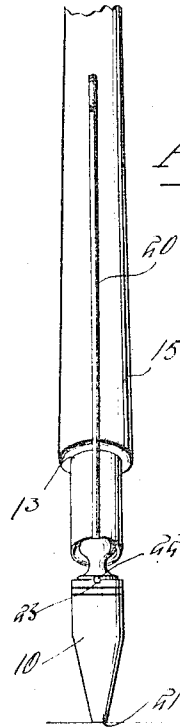


Fig. 8.

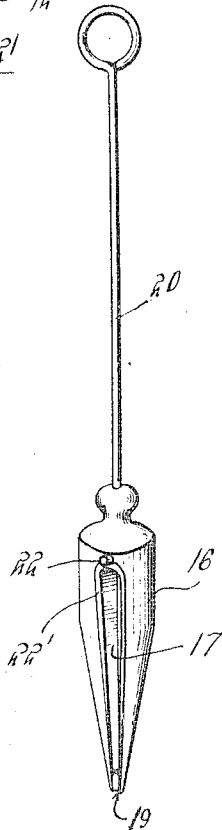


Fig. 9.

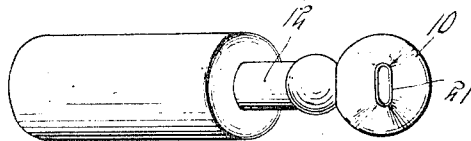
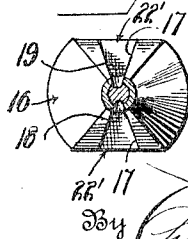


Fig. 10.



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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, RALPH P. DE VAULT, a citizen of the United States, residing at Battle Creek, in the county of Calhoun, State of Michigan, have invented certain new and useful Improvements in Pens; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to pens, and especially to a type particularly adapted for ruling and lettering.

The object of the invention resides in the provision of a novel form of pen for ruling and lettering which is adapted to trace a line of constant width and evenness irrespective of the direction in which the pen is operated.

A further object of the invention resides in the construction of the pen of the character named which is capable of carrying a relatively large supply of ink so as to obviate the necessity of refilling same at frequent intervals, and which may be refilled with ease and facility without danger of spilling ink upon surrounding objects during such operation.

A still further object of the invention resides in the provision of a pen of the character named in which the ink carried thereby will be evenly fed to the writing point during the operation of the pen.

With the above and other objects in view, the invention consists in the details of construction and in the arrangement and combination of parts to be hereinafter more fully described and particularly pointed out in the appended claims.

In describing the invention in detail, reference will be had to the accompanying drawings, wherein like characters of reference denote corresponding parts in the several views, and in which—

Figure 1 is a side elevation of the pen embodying the invention. Fig. 2 a view similar to Fig. 1 with certain parts shown in section. Fig. 3 a section on the line 3—3 of Fig. 2. Fig. 4 a detail perspective-view on an enlarged scale of the ink carrying core. Fig. 5 a view on an enlarged scale looking directly at the point of the pen with the ink carrying core removed. Fig. 6 a view similar to Fig. 2 but partly in section and showing a modified construction

of the pen particularly adapted for effecting shading when lettering. Fig. 7 a view in elevation looking at right angles to what is shown in Fig. 6 directly toward the stock or handle of the pen. Fig. 8 a detail perspective view of the ink carrying core associated with the modified construction illustrated in Fig. 6. Fig. 9 a view on an enlarged scale looking directly at the point of the pen, and with the ink carrying core removed, and Fig. 10, an enlarged section on the line 10—10 of Fig. 4.

Referring to the drawings the pen is shown as constructed of a tubular member 10 having one end thereof contracted to form a writing point 11. The member 10 has secured thereto intermediately, in any suitable manner, one end of a mounting arm 12. The other end of this arm 12 is provided with a longitudinal recess 13 which receives the reduced end portion 14 of a handle 15 and thereby forms the means for connecting the pen and handle. The mounting arm 12 is disposed at an angle to the tubular member 10 that will bring the writing point 11 of the pen in proper position, to engage the material upon which the pen is operated when the handle 15 is gripped.

Ink is supplied to the writing point 11 by means of an ink carrying core 16 which is adapted to be removably seated within the tubular member 10. This ink carrying core 16 conforms substantially in shape to the bore of the member 10 and extends from end to end of said bore. The core 16 is provided with an elongated transverse opening 17, while oppositely disposed grooves 18 and 19 extend longitudinally of the core 16 from the delivery end thereof to the adjacent end of the opening 17. The end of the core 16 opposite to the delivery end has secured thereto one end of a rod 20 forming a handle whereby said core may be easily removed from and inserted into the tubular member 10.

In order to prepare the pen for use it is only necessary to grasp the handle 20 and remove the core from the member 10. When this is done the core is inserted in a suitable supply of ink and then removed. As a result of capillary attraction the opening 17 of the core will be filled with ink which is transferred to the pen by the reapplication of the core into the bore of the tubular member 10. Upon instituting the use of the pen the ink carried by the core will flow by way

of grooves 18 and 19 to the writing point 11 where it is evenly delivered to the material upon which the pen is operated. It will be noted that as the bore of the tubular member 5 10 is circular in cross section at the writing point 11 the pen during use will trace a line of constant width and evenness irrespective of the direction in which the pen is operated.

In the modified form of the invention 10 illustrated in Figs. 6, 7, 8 and 9 the bore of the tubular member 10 at the writing end thereof has the form of an elongated opening as indicated at 21 in Fig. 9. This particular form of opening at the writing end 15 of the tubular member 10 will enable certain desired shading to be effected during the operation of lettering. As the result of the elongated form of opening at the writing end of the tubular member 10 it is necessary 20 that the core 16 always be inserted in the bore of the member 10 with the opening 17 extending transversely of the opening 21, and this relative position of the core is determined by providing same with a laterally 25 projecting pin 22 which seats in a recess 23 in the tubular member when the core and tubular member are disposed in proper assembled relation. In other respects the form of pen illustrated in 6, 7, 8 and 9 is 30 similar to that illustrated in Figs. 1, 2, 3, 4 and 5 both as to structure and operation.

It will be noted that the core 16 is provided with flat faces 22' at each side of the opening 17 so as to not engage the interior 35 wall of the tubular member 10 during the

insertion of the core into the tubular member. This construction prevents the ink disposed within the opening 17 from being deposited upon the interior wall of the tubular member and thereby wasted. These flat 40 faces 22' also serve to form an air inlet and effect an even and free flow of the ink through the writing point.

What is claimed is:

1. A pen formed of a tubular member, 45 one end of which constitutes a writing point and an ink carrying core removably mounted in said member, said core comprising an integral head having a transverse opening therethrough for receiving and holding ink, 50 and further provided with longitudinal grooves on its side face communicating with said transverse opening through the end of the core adjacent the writing point.

2. A pen formed of a tubular member, 55 one end of which constitutes a writing point and an ink carrying core removably mounted in said member, said core comprising an integral head having a transverse opening therethrough for receiving and holding ink, 60 and further having flat side portions at the terminals of said openings, and means for conveying ink from the opening to the writing point.

In testimony whereof, I affix my signature 65 in presence of two witnesses.

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Witnesses:

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