

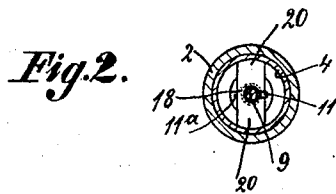
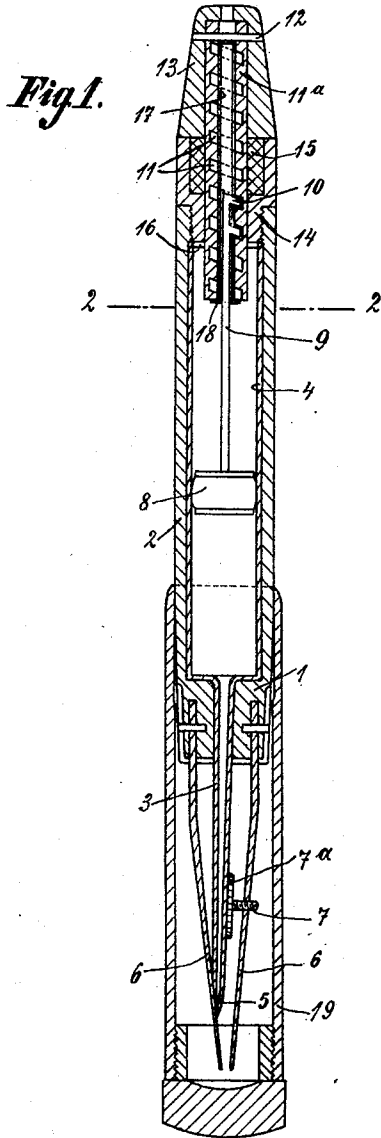
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E. R. G. A. RÖSLER

FOUNTAIN DRAWING PEN

Filed March 12, 1923



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# UNITED STATES PATENT OFFICE.

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## FOUNTAIN DRAWING PEN.

Application filed March 12, 1923. Serial No. 624,610.

*To all whom it may concern:*

Be it known that I, ERNST RICHARD GUSTAV ALBERT RÖSLER, citizen of Hamburg, Germany, residing at Hamburg, Schanzenstrasse 75/77, have invented certain new and useful Improvements in a Fountain Drawing Pen (for which I have filed an application in Germany on Mar. 27, 1922), of which the following is a specification.

The present invention refers to a fountain drawing pen in which the ink is fed from the fountain by the aid of a movable piston by a tube to the pen.

The novelty resides in the fact that the tube at its end is cut obliquely at an angle corresponding to that of the shanks of the pen, and that the said end of the tube with its opening is pressed against the inside of one of the shanks of the pen by a set screw screwed into the other shank of the pen. Preferably it is the head of the screw lying intermediate of the two shanks of the pen which engages the said tube and by the rotation of the screw the points of the pen shanks move away from or are allowed to approach one another respectively so as to determine the thickness of the line drawn by the pen.

Another feature of novelty consists therein, that the ink feed tube is connected with a removable lining within the fountain in such way, that the lining together with the tube can be drawn out opposite to the points of the pen.

The last named mode of construction of the fountain drawing pen has the advantage of tightness, preventing the ink from drying up within the feed tube, and moreover there is the advantage that the feed tube together with the lining can be interchanged with similar means thus allowing different colours to be used without the necessity of cleaning the pen.

In the drawing—

Fig. 1 is a longitudinal section of the fountain drawing pen, and

Fig. 2 is a cross section on the line 2—2 of Fig. 1, looking from below.

The feed tube 3 which projects through the end wall of the fountain 2 is connected with or integral with a lining 4 of the fountain 2. This tube 3 has at its end an oblique opening 5 bearing against the inside of one of the shanks 6 of the pen. For ad-

justing the distance of the points of the pen a set screw 7 is used, which is screwed into one of the shanks 6 of the pen, and bears with its head 7<sup>a</sup> intermediate of the two shanks 6 against the tube 3. The head 7<sup>a</sup> is roughened or ribbed so as to allow easy rotation. By the pressure obtained by the screw 7 the oblique end of the tube 3 impinges against the inside of the shank 6 of the drawing pen opposite that into which the screw 7 is screwed.

The lining 4 together with the tube 3 can be pulled out of the fountain 2 in a direction opposite the points of the drawing pen when the screw 7 is loosened thereby allowing the tube 3 to return into the exact axial position with regard to the boring in the wall 1. The discharge of the ink from the fountain into the tube 3 is obtained by the aid of a piston 8 closely fitting within the lining 4. The piston rod 9 is provided with lateral projections 10 which engage a spiral groove 11 within the tube 11<sup>a</sup> connected with a rotatable head or finger piece 13 by a transversal pin 12. This last named tube has a flange 16 bearing against the end face of the screw-stopper 14 screwed into the end of the fountain 2, and by the flange 16 the rotatable head 13 will be in connection with the screw-stopper 14 in such way that both can be removed from the fountain together with the tube 11<sup>a</sup>. Intermediate of the tube 11<sup>a</sup> and the enlarged boring of the screw-stopper 14 a packing 15 is inserted thus preventing leakages. Within the grooved tube 11<sup>a</sup> and intermediate thereof and the piston rod 9 a thin tube 17 may be inserted which fills the annular space between the piston rod 9 and the inner threaded wall of the tube 11<sup>a</sup>. The tube 17 is slotted longitudinally to allow the projections 10 of the piston rod 9 to enter the spiral groove 11. The flange 18 of the slotted tube 17 has extensions 20, which is attached to the lining 4 by soldering or the like to prevent the rotation of the tube when the screw 7 is turned. The lining 4 may be fastened to or connected with the screw-stopper 14. The protecting cap 19 for the pen points can be so constructed that it also can be telescoped over the rotatable head 13.

By the new fountain drawing pen the following advantages are gained. By the spring action of the shanks 6 of the pen

there will be a permanent pressure exerted on the feed tube 3 when engaged by the set screw 7, so that the end opening 5 will always bear against the inside of the shank 6, and moreover, whether in use or not in use, a drying up of the ink within the tube cannot take place. If, however, at the opening 5 a dry film will be created when the pen has not been used for some time this film will be torn when the fountain drawing pen is again made use of by the ink fed under the pressure of the piston 8. The effect can be still improved by inserting a piece of paper or some other tightening plate between the end of the tube 3 and the shank 6 against which it is supposed to bear. Such a piece of paper or the like will improve the tightness and when removed will take along with it any film or skin that might have been formed by the ink.

If another colour is to be used with the pen the lining together with the tube 3 will be removed and replaced by an other without necessitating the cleaning of the drawing pen on parts which are difficult to be got at or even necessitating the use of a second drawing pen.

I claim:

1. A fountain drawing pen comprising a fountain, a tube communicating with the fountain and having an oblique opening at its end adapted to impinge against the inside of one of the shanks of the drawing pen, a set screw screwed into the other shank of the pen and adapted to engage the said tube to press its end against the first named shank.

2. A fountain drawing pen comprising a fountain, a tube communicating with the fountain and having an oblique opening at its end adapted to impinge against the inside of one of the shanks of the drawing pen, a set screw screwed into the other shank of the pen and adapted to engage the said tube to press its end against the first named shank, a lining within the fountain and attached to the feed tube and adapted to be removed from the fountain together with the feeding tube.

3. A fountain drawing pen comprising a fountain, a tube communicating with the fountain and having an oblique opening at its end adapted to impinge against the inside of one of the shanks of the drawing pen, a set screw screwed into the other shank of the pen and adapted to engage the said tube to press its end against the first named

shank, a piston within the fountain having a piston rod provided on its ends with a lateral projection, a rotatable tube at the end of the fountain, having an inner thread into which the lateral projection of the said piston rod engages.

4. A fountain drawing pen comprising a fountain, a tube communicating with the fountain and having an oblique opening at its end adapted to impinge against the inside of one of the shanks of the drawing pen, a set screw screwed into the other shank of the pen and adapted to engage the said tube to press its end against the first named shank, a screw-stopper screwed into the fountain, a piston within the fountain having a piston rod provided on its ends with a lateral projection, a rotatable tube at the end of the fountain having an inner thread into which the lateral projection of the said piston rod engages.

5. A fountain drawing pen comprising a fountain, a tube communicating with the fountain and having an oblique opening at its end adapted to impinge against the inside of one of the shanks of the drawing pen, a set screw screwed into the other shank of the pen and adapted to engage the said tube to press its end against the first named shank, a screw-stopper screwed into the fountain, a piston within the fountain having a piston rod provided on its ends with a lateral projection, a rotatable tube at the end of the fountain having an inner thread into which the lateral projection of the said piston rod engages, the lining of the fountain being connected with the screw-stopper.

6. A fountain drawing pen comprising a fountain, a tube communicating with the fountain and having an oblique opening at its end adapted to impinge against the inside of one of the shanks of the drawing pen, a set screw screwed into the other shank of the pen and adapted to engage the said tube to press its end against the first named shank, a screw-stopper screwed into the fountain, a piston within the fountain having a piston rod provided on its ends with a lateral projection, a rotatable tube at the end of the fountain having an inner thread into which the lateral projection of the said piston rod engages, the rotatable tube projecting through the screw-stopper and provided with a head or finger piece.

In testimony whereof I have signed my name to this specification.

ERNST RICHARD GUSTAV ALBERT RÖSLER.