



PATENT SPECIFICATION

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COMPLETE SPECIFICATION.

Reservoir Drawing Pen.

We, SIMPLO FÜLLFEDER GESELLSCHAFT VOSS, LAUSEN & DZIAMBOR, a German company, of Schanzenstrasse, 75/77, Hamburg, Germany, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

10 This invention relates to a reservoir drawing pen of the type in which the ink is fed to the pen from a reservoir fitted with a movable piston through a tube beveled at one end in substantial
15 correspondence with the inclination of one of the blades against the inner face of which it may be pressed by an adjusting screw serving to regulate the spacing of the blades and the thickness of the
20 lines to be drawn.

According to the invention the screw is fitted with its headed end disposed intermediate the blades of the pen and in engagement with the tube whereby to
25 press the tube against one of the blades and with its other end in screw-threaded engagement with the other blade.

According to a secondary feature, the
30 tube is connected with a removable lining within the stem of the pen in such wise that the lining together with the tube can be withdrawn at the proximal end, that is the end remote from the point of
35 the pen.

Desirably the lining is connected with the screw-stopper for closing the proximal end of the reservoir.

Fig. 1 of the accompanying drawing
40 is a longitudinal section of a reservoir drawing pen according to the invention; Fig. 2 is a section on the line 2—2 of Fig. 1.

The feed tube 3 which projects through
45 the end wall 1 of the reservoir 2 is connected with or integral with a lining 4 for the reservoir 2. This tube 3 has at

its end an oblique opening 5 bearing against the inner face of one of the blades 6 of the pen. For adjusting the spacing of the points of the pen there
50 is used a set screw 7 which is threaded into one of the blades 6 of the pen, and abuts with its head 7^a intermediate the
55 two blades 6 against the tube 3. The head 7^a is roughened or ribbed to facilitate rotation. By the pressure obtained by the screw 7 the oblique end of the tube 3 is pressed against the inner face
60 of the blade 6 opposite that into which the screw 7 is threaded.

The lining 4 together with the tube 3 can be pulled out of the reservoir 2 in the direction away from the point of the pen when the screw 7 is loosened, thereby
65 allowing the tube 3 to return to the exact axial position relatively to the bore in the wall 1. The delivery of the ink from the reservoir into the tube 3 is obtained
70 by the aid of a piston 8 closely fitting within the lining 4. The piston rod 9 is provided at its end with a lateral projection or projections 10 engaging an
75 internal helical groove 11 in the tube 11^a connected with a rotatable head-piece 13 by a transverse pin 12. The tube 11^a has a flange 16 bearing against the end face of the screw-stopper 14 threaded into the end of the reservoir 2, and by the
80 flange 16 the rotatable head-piece 13 will be in connection with the screw-stopper 14 in such wise that both can be removed from the reservoir together with the tube 11^a. Intermediate the tube 11^a and the enlarged bore of the screw-stopper 14 a
85 packing 15 is inserted, thus preventing leakage. Within the grooved tube 11^a and intermediate said tube and the piston rod 9 there may be inserted a thin tube 17 which fills the annular space between
90 the piston 9 and the internally threaded wall of the tube 11^a. The tube 17 is slotted longitudinally to allow the projections 10 of the piston rod 9 to enter

the groove 11. The lining 4 may be fastened to or connected with the screw-stopper 14. The protecting cap 19 for the pen point may be so constructed that it also can be telescoped over the rotatable head 13.

The flange 18 of the slotted tube 17 may be formed with extensions 20 soldered or otherwise secured to the lining 4 to prevent rotation of the tube and therewith of the piston when the head-piece 13 is rotated.

Due to the springy action of the blades 6 of the pen there will be a permanent pressure exercised on the feed tube 3 when engaged by the set screw 7, so that the end opening 5 will always bear against the inner face of the blade 6, and moreover, whether the pen be in use or not in use, drying up of the ink within the tube cannot take place. If, however, at the opening 5 a dry film be created when the pen has not been used for some time, this film will be torn when the drawing pen is again made use of by the ink fed under the pressure of the piston 8. The effect can be still further improved by inserting a piece of paper or the like between the end of the tube 3 and the blade 6 against which it is designed 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 of ink is to be used, the lining together with the tube 3 will be removed and replaced by another lining and tube without necessitating the cleaning of the drawing pen or parts which are difficult of access or even

necessitating the use of a second drawing pen.

We may explain that in connexion with reservoir drawing pens it has previously been proposed to connect the tube with a removable liquid container fitted in a holder exterior to the stem of the pen. It has also been proposed to form the stem of the pen with a cavity to receive a fixed ink receptacle connected with the tube.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is:—

1. A reservoir drawing pen of the type referred to characterised in that the adjusting screw is fitted with its headed end disposed intermediate the blades of the pen and in engagement with the tube whereby to press the tube against one of the blades of the pen and with its other end in screw-threaded engagement with the other blade.

2. A reservoir drawing pen as claimed in Claim 1 in which the tube is connected with a movable lining within the stem of the pen in such wise that the lining together with the tube can be withdrawn at the proximal end, that is the end remote from the point of the pen.

3. A reservoir drawing pen as claimed in Claim 2 in which the lining is connected with the screw-stopper for closing the proximal end of the reservoir.

Dated this 22nd day of March, 1923.
CRUIKSHANK & FAIRWEATHER,
62, Saint Vincent Street, Glasgow, &
65—66, Chancery Lane, London, W.C.,
Agents for the Applicants.

[This Drawing is a reproduction of the Original on a reduced scale]

Fig.1.

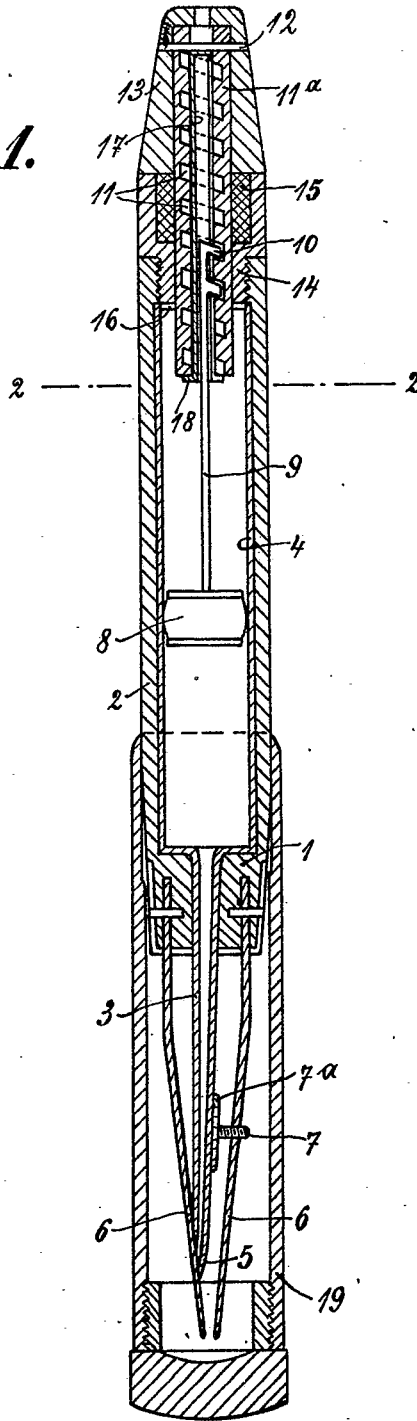


Fig.2.

