

PATENT SPECIFICATION



Application Date: Nov. 16, 1921. No. 30,535/21.

194,751

Complete Accepted: March 16, 1923.

COMPLETE SPECIFICATION.

Improvements in Fountain Pens.

I, RYOSUKE NAMIKI, Manufacturer, a subject of the Emperor of Japan, and a resident of No. 1693, Miyashita, Sugamo-Machi, Kitatoshima-Gun, Tokyo, Empire of Japan, 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 comprises certain improvements in fountain pens, and relates to that type of pen in which the flow of ink from the ink reservoir to the ink duct of the nib carrier is regulated
15 and controlled by a rotational adjustment of the nib carrier within a sleeve having a screw-threaded or other rigid but detachable connection to the end opening of the reservoir casing, the
20 sleeve and the nib carrier being provided with ink holes adapted to be brought into and out of register by such rotational adjustment.

In one prior construction of fountain
25 pen of this type, several ink holes in an inner terminal disc of the sleeve have been adapted to be brought into and out of register with corresponding holes in an inner terminal disc of the nib carrier,
30 the holes being disposed in an axial direction, and in communication with the ink duct by way of a sub-reservoir located axially within the body of the nib carrier.

35 In another construction, a cross hole in the nib carrier has been adapted to be brought into and out of register with a pair of passages in the sleeve.

40 According to the present invention a fountain pen of the type referred to is characterised by the nib carrier having an opposite pair of radially disposed ink holes adapted to be brought into and out
45 of register with corresponding radial holes in the sleeve, and by said ink holes communicating with the ink duct by way of an axial inner chamber of the

nib carrier and by way of a sub-reservoir located in the underside of a removable ink duct or member of the nib carrier,
50 said sub-reservoir having a pair of channels connecting it with the ink duct. The invention is further characterised by the rotational adjustment
55 of the nib carrier, relative to the sleeve, being limited by a pin projecting radially from the nib carrier into a radial cut in the sleeve, the complementary pairs
60 of radial ink holes being brought to the open position at one end position of the rotation and to the closed position at the other.

My invention will be readily understood by reference to the accompanying
65 drawing, on which:—

Figure 1 is a longitudinal vertical-sectional view of my preferred embodiment, and

Figure 2 is an end view of the sleeve portion thereof shown partly in section. 70

The casing 1 constituting the ink-reservoir is open at one end, to which a frustrum-shaped sleeve 2 is engaged by a screw portion 2¹. Said sleeve is counter-bored through its longitudinal axis to
75 leave a shoulder at the inner end. A nib carrier 3 is provided with a flange 3¹ at its outer end so as to be engaged in the free end of the sleeve, and is also reduced at its inner end for receiving
80 a packing ring 4, so that the nib carrier is tightly but rotatably fitted in said bore, and leakage through the clearance between the sleeve 2 and nib carrier 3 is prevented. Opposite pairs of radial
85 ink-holes 5 and 6 are provided in the elongation 2¹ of the sleeve, in the packing ring 4, and in the reduced portion of the nib carrier 3, in such a part where these are immersed in the ink-reservoir,
90 so that in use said holes are brought into or out of alignment with each other by manual operation, that is to say, by rotation of the nib carrier in one

direction or the other. The nib carrier 3 is provided with a pin 8 screwed therein at its inner end, which pin is projected into a cut 7 radially disposed at the inner end of the sleeve. By this means the nib carrier is not only prevented from separation, but also is restrained in its circumferential rotation relative to the sleeve. An ink-duct 9 on which a nib 13 is laid in usual manner is inserted into said nib carrier 3. The ink-duct 9 is provided with a sub-reservoir 10 at the underside, which communicates with an axial inner chamber 14 of the nib carrier through a passage 11 and also with the ink duct 15 on the underside of the nib 13 through a pair of channels 12. Therefore, by turning the nib carrier 3 so that the ink-holes 6 are brought into alignment with the other holes 5, the ink contained in the reservoir flows out into the sub-reservoir 10 through the holes 5, 6, chamber 14, and passage 11, and is conveyed through the channels 12 and ink duct 15 to the pen-point.

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

1. A fountain pen of the type referred

to, characterised by the nib carrier having an opposite pair of radially disposed ink holes adapted to be brought into and out of register with corresponding radial holes in the sleeve, and by said ink holes communicating with the ink duct by way of an axial inner chamber of the nib carrier and by way of a sub-reservoir located in the underside of a removable ink ductor member of the nib carrier, said sub-reservoir having a pair of channels connecting it with the ink duct.

2. A fountain pen according to Claim 1, characterised by the rotational adjustment of the nib carrier, relative to the sleeve, being limited by a pin projecting radially from the nib carrier into a radial cut in the sleeve, the complementary pairs of radial ink holes being brought to the open position at one end position of the rotation and to the closed position at the other.

Dated this 15th day of November, 1921.

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

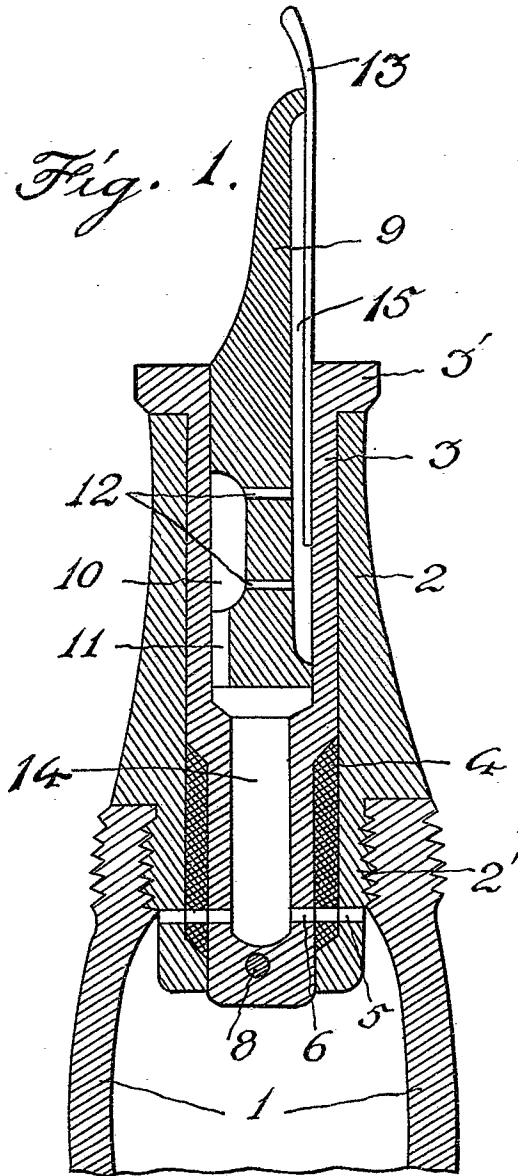


Fig. 2.

