

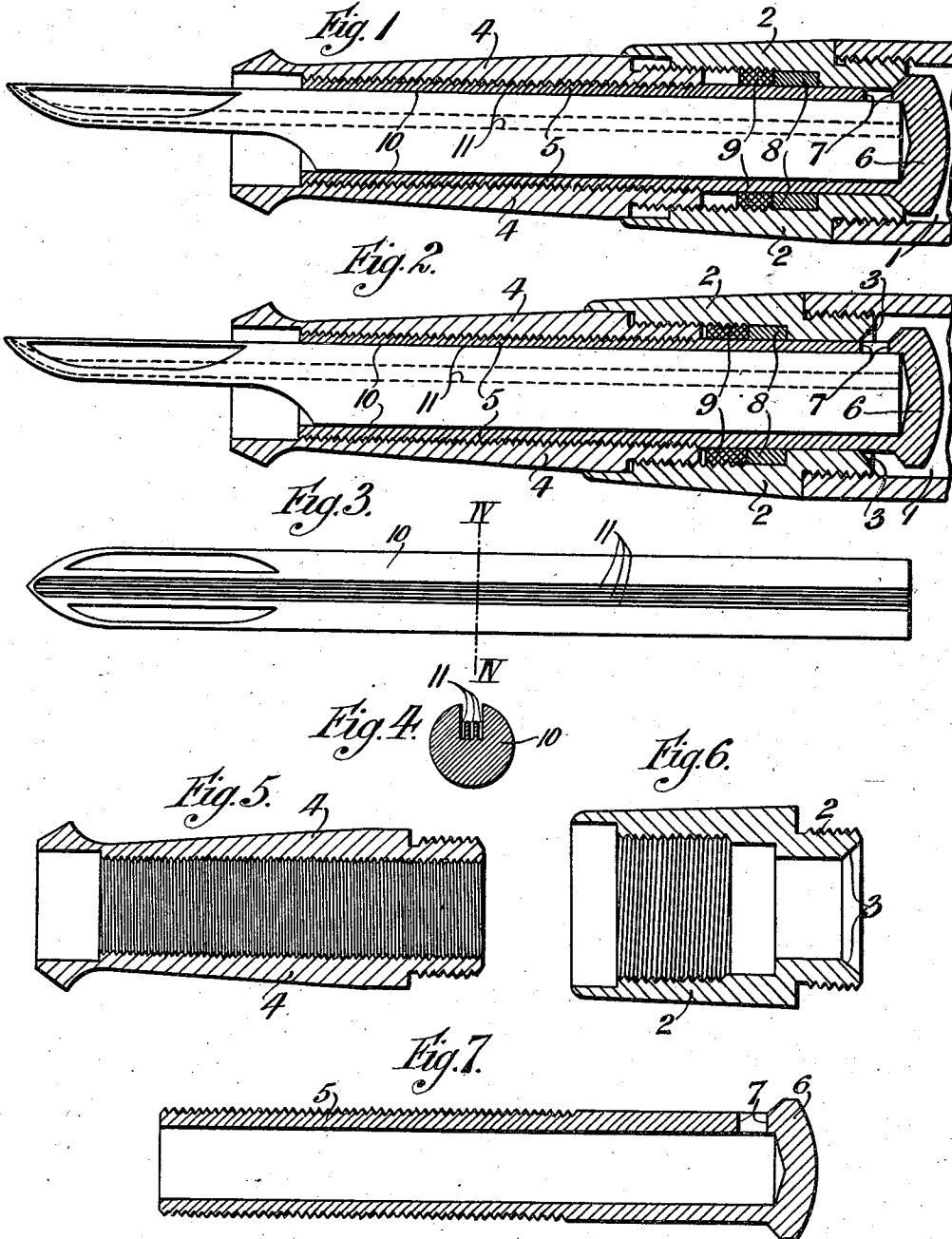
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F. TURNER

RESERVOIR PEN

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Inventor,

FRANK TURNER,
By his Attorneys,

Palmer & Wright

UNITED STATES PATENT OFFICE.

FRANK TURNER, OF LONDON, ENGLAND, ASSIGNOR TO THOMAS DE LA RUE AND COMPANY, LIMITED, OF LONDON, ENGLAND.

RESERVOIR PEN.

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This invention relates to reservoir pens. One object of this invention is to provide improved means for shutting off the flow of ink from the ink reservoir to the nib.

5 A further object of the invention is to provide means by which the flow of ink from the reservoir to the nib can be accurately adjusted.

10 In a reservoir pen constructed according to this invention, the carrier for the feed bar and nib consists solely of five parts, that is to say, a bottom section, a packing, a packing securing ring, a top section and a feed box.

15 The valve for controlling the flow of ink is formed on the enlarged blank end of the feed box, the valve being larger than the bar of the bottom section which receives the said feed box.

20 The bottom section contains the packing and the packing securing ring. The feed box passes through the bottom section and screws into the top section, which in turn screws into the bottom section. The feed box has a blank end larger than the bore of the bottom section, and a side outlet.

25 In operation, when the two sections are rotated relatively to one another, the valve on the end of the feed box closes down on the bottom section, thereby preventing the ink from entering the carrier or nib section.

30 In the accompanying drawing which illustrates the invention, Figure 1 is a section showing the valve closed, Figure 2 is a similar section showing the valve open, Figure 3 is a detail plan, Figure 4 is a section on the line IV—IV, Figure 5, and Figures 5, 6 and 7 are sections showing various details separately.

35 1 is a reservoir for ink, screw threaded to receive a bottom section 2. The inner end of the bottom section 2 is provided with a valve seating 3, while the outer end of the bottom section is screw threaded to receive a top section 4. The top section 4 is in turn screw threaded to receive a feed box 5. The feed box 5 is provided with a valve head 6 and with a port 7. 8 represents a packing to make a fluid-tight joint between the top section 2 and the feed box 5. 9 is a securing ring by means of which the packing can be compressed.

40 55 The feed box 5 is bored out to receive a feed bar 10 which is provided with longi-

tudinal grooves 11, as shown, see Figures 3 and 4, for supplying ink to the nib (not shown). When the feed bar 10 and nib are in position, the outer end of the feed box 5 is expanded so that its thread jams on to the outer end of the top section 4 which is turned relatively to the bottom section 2; the feed box 5, the feed bar 10 and nib turn together with the said top section 4.

60 In Figure 1 the supply of ink from the reservoir 1 is wholly shut off by the valve head 6 on the feed box 5, the only ink between the valve 6 and the nib being that which is contained in the small grooves 11.

70 With such a construction (when the valve is closed), the liability to blot is almost, if not entirely, eliminated. As the top section 4 is turned relatively to the bottom section 2, the supply of ink from the reservoir 1 to the nib is gradually increased to any desired extent.

What I claim is:—

1. In a reservoir pen, the combination of a reservoir, a bottom section adapted to be attached thereto, a valve seat on said bottom section and forming at least part of one end of the reservoir, a top section, rotatively mounted in said bottom section, a feed box carried by said top section, and a valve head on said feed box, the said valve head being located in the reservoir and capable of shutting off entirely the flow of ink from the reservoir.

2. In a reservoir pen, the combination of a reservoir, a bottom section adapted to be attached thereto, a valve seat integral with said bottom section and forming at least part of one end of the reservoir, a top section screwing into the bottom section, a feed box carried by the top section, and a valve head on said feed box, the said valve head being located in the reservoir, the screw thread between the top and bottom sections being of such a pitch that a plurality of turns must be imparted to the valve head to move it from the fully open to the fully closed position.

3. In a reservoir pen, a carrier for a feed bar and nib consisting solely of the following parts in combination, a bottom section, a packing therein, a packing securing ring, a top section rotatively mounted in said bottom section and a feed box carried by the top section.

4. In a reservoir pen, the combination of

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- a reservoir, a bottom section adapted to be attached thereto, a valve seat on said bottom section and forming at least part of one end of the reservoir, a top section rotatively mounted in said bottom section, a feed box carried by said top section, and a valve head on said feed box, the said valve head being of greater diameter than the bore of the bottom section, and located in the reservoir.
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- 10 5. In a reservoir pen, the combination of a reservoir, a bottom section adapted to be attached thereto, a valve seat integral with said bottom section and forming at least part of one end of the reservoir, a top section screwing into the bottom section, a feed
- 15 box carried by the top section, and a valve head on said feed box, the said valve head being of greater diameter than the bore of the bottom section, and located in the reservoir, the screw thread between the top and bottom sections being of such a pitch that a plurality of turns must be imparted to the valve head to move it from the fully open to the fully closed position.
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- 25 6. In a reservoir pen, a carrier for a feed bar and nib consisting solely of the following parts in combination, a bottom section, a packing therein, a packing securing ring, a top section rotatively mounted in said bottom section, and a feed box carried by the top section, having a blank end forming a valve head larger than the bore of the bottom section which receives the said feed box.
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- 35 In testimony that I claim the foregoing as my invention I have signed my name this 12th day of September, 1924.

FRANK TURNER.