

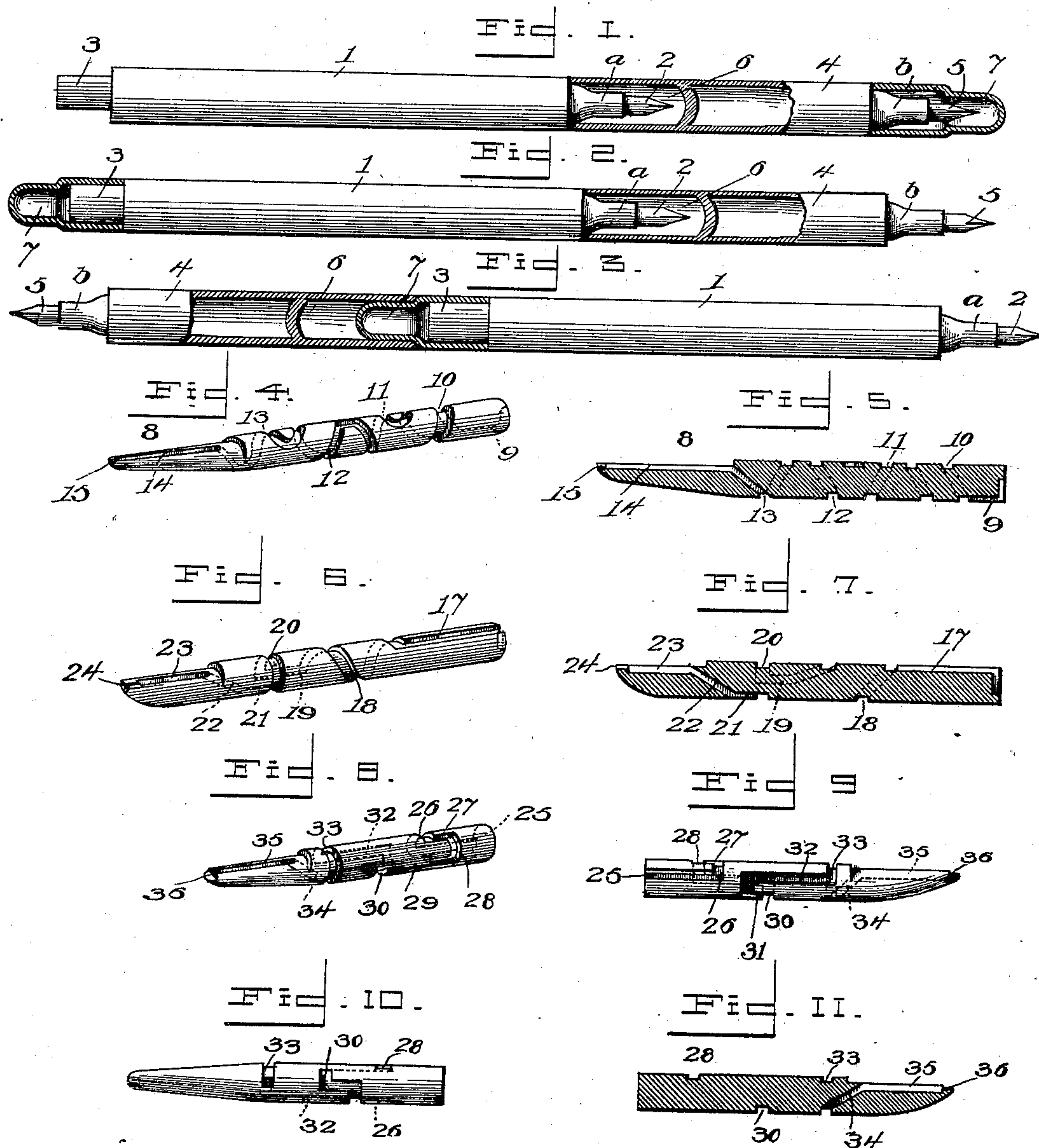
No. 628,690.

Patented July 11, 1899.

J. H. BURTON.  
FOUNTAIN PEN.

(No Model.)

(Application filed Apr. 27, 1898.)



Witnesses:

*Fenton S. Bell,*  
*J. H. Burton*

Inventor:

*J. H. Burton,*  
*by*  
*A. B. Wilson & Co.,*  
Attorneys.



# UNITED STATES PATENT OFFICE.

JOSEPH H. BURTON, OF KINGSTON, NEW YORK.

## FOUNTAIN-PEN.

SPECIFICATION forming part of Letters Patent No. 628,690, dated July 11, 1899.

Application filed April 27, 1898. Serial No. 678,931. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH H. BURTON, a citizen of the United States, residing at Kingston, in the county of Ulster and State of New York, have invented certain new and useful Improvements in Fountain-Pens; and I do 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.

The invention relates to fountain-pens and to feeding devices therefor; and the object of the invention is, first, to provide a duplex pen, or, in other words, a pen in which two different-colored inks may be used or two inks of different character—such, for instance, as copying-ink and record-ink—and, secondly, to provide novel feeding devices for said pen, whereby the pen when lying flat upon a desk or table will not leak.

With these objects in view the invention consists in certain features of construction and combination of parts hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 is a side elevation, partly in section, of my improved fountain-pen, illustrating the relation of parts when not in use. Fig. 2 is a similar view showing the relation of parts when one of the pens is in use. Fig. 3 is a similar view showing the relation of parts when the other pen is in use. Fig. 4 is a detail perspective view of one of the feeding devices. Fig. 5 is a longitudinal sectional view through the same. Fig. 6 is a detail perspective view of another form of feeding device. Fig. 7 is a longitudinal sectional view through the same. Fig. 8 is a perspective view of another form of feeding device. Fig. 9 is a side elevation looking from the opposite side. Fig. 10 is a bottom plan view. Fig. 11 is a longitudinal sectional view.

In the drawings, 1 denotes the fountain of the main pen provided with a pen-socket *a*, pen-point 2, and a reduced upper end 3.

4 denotes the supplemental fountain provided with the pen-socket *b*, pen-point 5, and with a socketed end 6.

7 denotes a cap.

As shown in Fig. 1, the parts are arranged so that the pen may be carried in the pocket. Now supposing it is desired to use the ink in

fountain 4 of the pen, the cap 7 is removed and placed over the reduced end 3 of the fountain 1, as shown in Fig. 2. Now should it be desired to use the ink in fountain 1 the fountain 4 is slipped off the pen end of the fountain 1 and has its socketed end slipped over the cap 7, that is on the end 3 of fountain 1, thus inverting the pen-point 5 and preventing the running of ink therefrom while the pen-point 2 is being used, and when in this position should it be desired to use the ink in fountain 4 the fountain 1 may be inverted, and the ink in said fountain 1 will also be prevented from leaking out while writing with the pen 5. It will thus be seen that the device comprises within itself two separate pens, and to secure this result the size and length are not materially increased.

I provide several novel forms of feed devices for my improved pen by means of which when the pen is placed upon a table or desk in a horizontal position the ink will not run out and smear the papers and also the pen-socket.

I will now proceed to describe the several forms of feeding devices.

Referring to Figs. 4 and 5, 8 denotes a feeding device which consists of a cylindrical solid body having on its exterior, near its inner end and preferably on its lower side, a longitudinal groove or channel 9, that communicates with a spiral channel 10, the spiral extending in one direction and communicating with a spiral 11, extending in an opposite direction. This spiral 11 in turn communicates with a spiral 12, extending in a direction opposite to the spiral 11, and the spiral 12 communicates with a spiral 13, extending in the opposite direction to the spiral 12. The spiral 13 now communicates with a slanting duct that extends entirely through the body of the feed. This duct communicates with a longitudinal groove 14, which lies directly under the shank of the pen. The end of this groove is provided with a vent-passage 15, which permits air to be expelled from said groove as the ink flows therein. This vent-passage is only intended to allow the escape of air and, owing to its size, will not allow the ink to escape therethrough.

When the penholder is laid upon a table or desk, it is evident that the ink cannot run



through the feed out to the pen and on the desk, for the reason that the ink-entrance to the feed is on the side opposite to the exit of ink from the feed. Figs. 6 and 7 show feeding devices as being provided with a longitudinal groove or channel 17, communicating at its outer end with a spiral groove or channel 18, which in turn communicates with the short longitudinal channel 19, communicating with a semicircular channel 20. This channel 20 communicates with a short longitudinal channel 21, which in turn communicates with the slanting duct 22, leading to the longitudinal ink-groove 23, which is provided with the air-vent 24.

In Figs. 8, 9, 10, and 11, 25 denotes the longitudinal channel at the inner end of the feed device, which at its outer end communicates with a short transverse groove or channel 26, which communicates with a short longitudinal groove or channel 27, extending rearward, said rearwardly-extending groove or channel communicating with a short transverse channel 28, which in turn communicates with a longitudinal groove or channel 29, leading to the forward end of the feed device. This groove or channel 29 communicates with a short transverse groove or channel 30, which in turn communicates with a rearwardly-extending groove or channel 31. This groove or channel 31 communicates with a forwardly-extending long groove or channel 32, which communicates with a semicircular groove or channel 33, that leads to the slanting duct 34, which communicates with the longitudinal ink-groove 35, provided with the air-vent 36.

Changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a duplex pen of the character described, the combination with the fountain 1 provided with a reduced extension 3, of the fountain 4 provided with a socketed end adapted to be slipped over the pen-point of the fountain 1, a cap 7 adapted to be slipped over the pen-point of the fountain 4 and also adapted to be slipped over the extension 3 to receive the socketed end of the fountain 4 when the pen-points of the two fountains are to be used alternately, or to be slipped over the pen-point of the fountain 4 when the pen-point of the fountain 1 is to be used solely, substantially as shown and described.

2. A feed device for fountain-pens consisting of a solid cylindrical body provided with external ink passages or grooves leading to an inclined duct extending through the lower end of said device, and an ink-groove communicating with said duct and provided in its ends with an air-vent, said passages or grooves being located entirely upon the surface and encompassing the cylindrical body portion, substantially as and for the purpose set forth.

3. A feed device for fountain-pens consisting of a solid cylindrical body provided with abruptly-interrupted external ink passages or grooves leading to an inclined duct extending through the lower end of said device, and an ink-groove communicating with said duct and provided at its rear end with a vent, said passages or grooves being located entirely upon the surface and encompassing the cylindrical body portion, substantially as and for the purpose set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JOSEPH H. BURTON.

Witnesses:

WILLIAM F. DECKER,  
GEO. P. BOARDMAN.