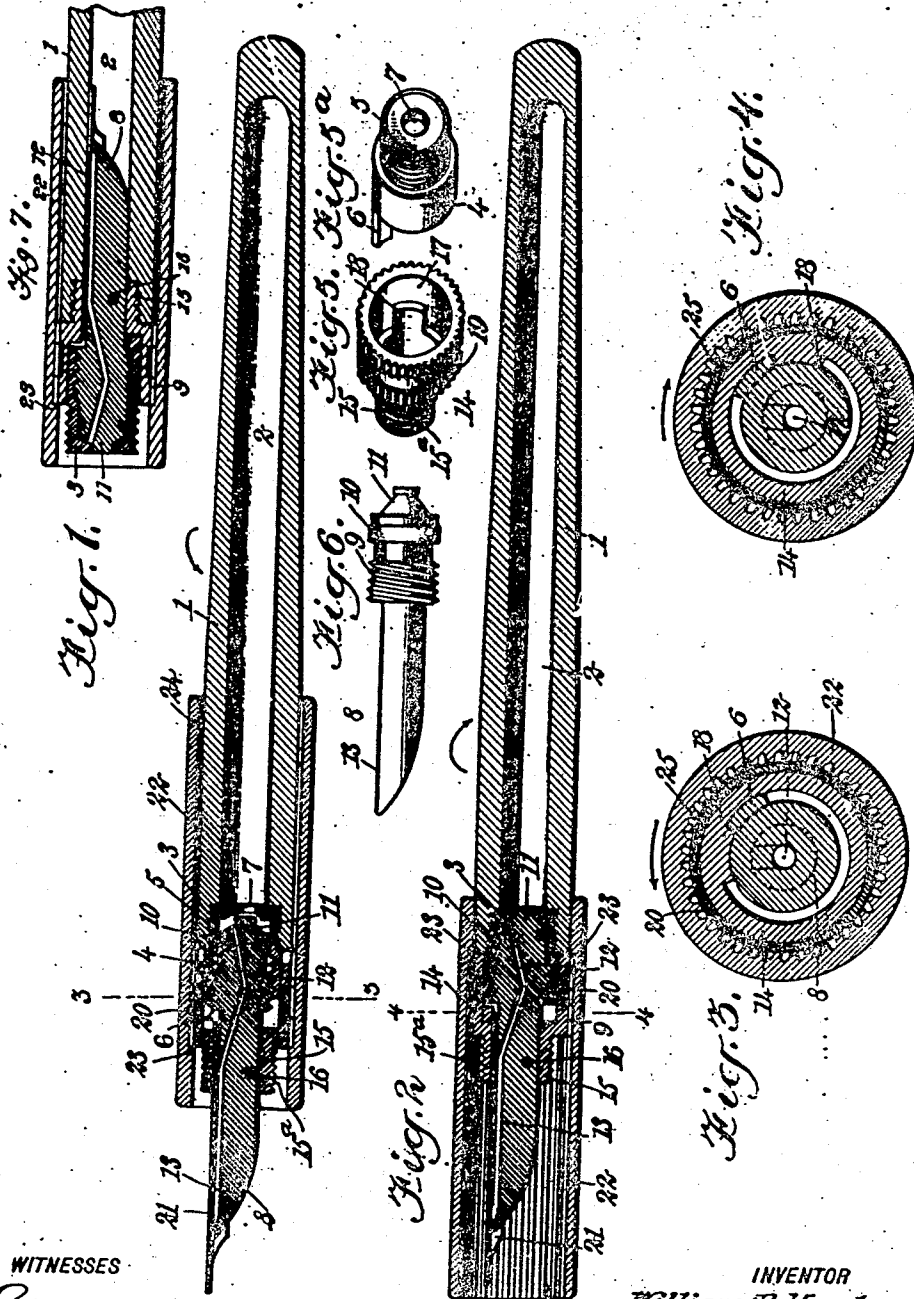


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PATENTED AUG. 11, 1908.

W. A. HOUSTON.
FOUNTAIN PEN.
APPLICATION FILED SEPT. 9, 1907.



WITNESSES

Godfrey Taylor
J. D. Munroe

INVENTOR
William A. Houston
BY *Munroe*
ATTORNEYS

UNITED STATES PATENT OFFICE.

WILLIAM ANDREW HOUSTON, OF TRACY, MINNESOTA.

FOUNTAIN-PEN.

No. 895,463.

Specification of Letters Patent.

Patented Aug. 11, 1903.

Application filed September 9, 1907. Serial No. 391,935.

To all whom it may concern:

Be it known that I, WILLIAM ANDREW HOUSTON, a citizen of the United States, and a resident of Tracy, in the county of Lyon and State of Minnesota, have invented a new and Improved Fountain-Pen, of which the following is a full, clear, and exact description.

This invention relates to pens.

10 The object of the invention is to produce a pen which is constructed in such a way that the flow of ink from the reservoir to the pen may be readily cut off when desired, so that the pen may be carried in the pocket, without danger of the ink leaking out.

The invention consists in the construction and combination of parts, to be more fully described hereinafter and particularly set forth in the claims.

20 Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a longitudinal, central section through a pen constructed in accordance with my invention. This view represents the parts in the relation which they have when communication between the reservoir and the pen point is open, the pen being ready for writing; Fig. 2 is a view similar to Fig. 1 but representing the pen in its closed condition, as when carried in the pocket, the flow of ink from the reservoir to the pen point being cut off; Fig. 3 is a cross-section on the line 3—3 of Fig. 1, upon an enlarged scale; Fig. 4 is a view similar to Fig. 3, but taken on the line 4—4 of Fig. 2; Fig. 5 is a perspective of a collar, the rotation of which affords means for admitting or arresting the flow of ink from the reservoir to the pen point; Fig. 5* is a perspective of a forward portion of the reservoir or body of the pen-holder, the same being shown partly in cross section. This view also shows a portion of a valve and illustrates the means for limiting the amount of rotation of the collar; and Fig. 6 is a side elevation of the feeder. Fig. 7 is a longitudinal section taken at the forward end of the reservoir and showing the pen and sleeve in a reverse position, adapting the fountain pen to be carried in one's pocket.

Referring more particularly to the parts,

and especially to Figs. 1 and 2, 1 represents the body of the pen-holder, which is of tapered tubular form as shown, and provided with a bore or reservoir 2. The forward end of this body is counter-bored and provided with a thread 3 in which there is attached a valve or thimble 4, said valve having a reduced, threaded nipple 5 for this purpose. 55 The body of this valve is of tubular form as shown, and is provided at its forward edge with a forwardly projecting tongue 6 as illustrated in Fig. 5*. The inner end of this valve is provided with a valve opening 7 65 through which the ink passes in coming from the reservoir to the pen point. The thimble 4 is of substantially tubular form, its outer portion being threaded in order to facilitate the attachment of a feeder 8. This feeder 70 has an elongated body and its inner extremity is enlarged and formed with a threaded neck 9, the threads of which are adapted to engage the threads 3 as indicated. Beyond this threaded neck 9 a packing-ring 10 is 75 placed upon the inner portion of the feeder, and this portion of the feeder constitutes a plug which fits tight in the inner end of the thimble so as to exclude the ink from the threads and the threaded neck 9. The inner 80 extremity of the feeder is formed into a conical point or valve 11 which is adapted to seat in the opening 7 so as to cut off the flow of ink through the feeder, as will be readily understood. From the conical tip 11 a feed 85 duct 12 extends inwardly through the feeder and this duct communicates with a groove 13 on the upper side of the feeder as shown.

In assembling the parts the feeder 8 is screwed into the thimble as shown and a collar 14 is then applied. This collar is clearly 90 illustrated in Fig. 5; it is formed with a reduced, tubular neck 15 which enables it to be attached to the body of the feeder by means of a through pin 16. The body of the collar 95 is enlarged and formed with a cylindrical bore 17 and in this bore a longitudinally projecting tongue 18 is formed. When the collar is slid into position this tongue 18 comes into position opposite to the tongue 6, so that 100 if the collar is rotated after being fixed in position by means of the pin 16 it will rotate the feeder, but at the same time the tongue 6 will limit the rotative movement of the col-

lar and the feeder. The rotation of the feeder in one direction will of course unscrew it and open the valve, while the rotation in the other direction will close the valve; the rotation in either direction being limited by the engagement of the tongues 6 and 18. This relation of the parts is clearly illustrated in Figs. 3 and 4, in which Fig. 3 shows the parts in the relation which they have when the valve is open, and Fig. 4 shows it when the valve is closed.

The outer face of the body of the collar 14 is formed with corrugated or longitudinally ribbed rings 19 and between these rings a packing-ring 20 of rubber or similar material is placed. This packing-ring is corrugated or ribbed like the rings 19.

The pen-point 21, which may be of gold or similar material, is seated on the feeder over the groove 13, in the usual manner, and the butt of the pen-point is received between the collar and the body of the feeder. It should be held friction tight simply by being pushed into position.

The forward portion of the pen-holder is normally inclosed in a sleeve 22. This sleeve is of tubular form slightly contracted at its forward extremity, as indicated in Fig. 1, so as to form an annular shoulder 23. This shoulder forms a stop for the sleeve when it is forced into position from the front, as will be readily understood. When in this position the end of the sleeve is alined with the forward portion of the collar so that the pen-point 21 and the feeder 8 project from the pen-holder in the usual manner. The bore 24 of the sleeve is formed of corrugations or ribs 25, as indicated in Figs. 3 and 4, which corrugations are adapted to engage with the corrugations of the rings 19 and also engage with the packing-ring 20 disposed between the rings. In this way the sleeve affords means for rotating the collar, it being understood that to open the reservoir the body 1 of the pen-holder will be rotated toward the left as indicated by the arrow, in Fig. 1. An opposite movement as indicated by the arrow in Fig. 2, will bring the reservoir to its closed condition. When the pen is to be worn in the pocket, the sleeve 22 will be slid longitudinally so as to disengage it from the pen and will be thus applied to the pen-holder in a reverse position, as indicated in Fig. 2. In this position the sleeve comes to rest when the shoulder strikes the collar 14, which collar projects slightly beyond the outer surface of the body 1 as indicated. In this way, the body of the sleeve extends beyond the body of the pen-holder and forms a casing or guard enveloping the feeder and pen-point. In this way the pen is well protected from injury and at the same time the flow of ink from the reservoir to the pen is effectually cut off. It may, of course, be

opened by simply twisting the parts of the pen as described above.

The neck 15 is provided with screw threads 15^a which fit the thread 3. Hence, if desired, the feeder and pen-point may be unscrewed from the body 1 at the nipple 5 and attached in a reversed position, that is, with the feeder and pen-point projecting down into the body of the pen; this is a convenient position when the pen is being carried in the pocket.

Having thus described my invention I claim as new, and desire to secure by Letters Patent:—

1. A fountain pen having a body with a reservoir therein, a thimble seated in the end of said reservoir and having an axial opening in the inner end thereof, a feeder mounted in said thimble and having a thread connection therewith of high pitch, whereby a partial turn of said feeder may advance the same to close said opening, and a stop engaging said feeder and limiting the rotation thereof in either direction.

2. A fountain pen, comprising a tubular body constituting a reservoir, a thimble seated in the end of said body, a feeder having a threaded neck screwing into said thimble, said thimble having an opening therein constituting a valve adapted to be closed by the inner end of said feeder, a collar rigidly attached to said feeder and having a tongue projecting from the wall thereof, and a tongue projecting from said thimble and lying in the path of said first tongue and limiting the amount of rotation of said feeder in either direction.

3. A fountain pen having a body with a reservoir, a rotatable feeder mounted in said reservoir, means whereby the rotation of said feeder may open or arrest the flow of ink through the same, a pen carried by said feeder, a sleeve surrounding the outer portion of said feeder and affording means for rotating the same, said sleeve being reversible and affording means in its reverse position for enveloping said feeder and the pen carried thereby.

4. A fountain pen having a body constituting a reservoir, a thimble mounted in the end of said body, a feeder having a threaded connection with said thimble, said thimble having an opening adapted to be closed by said feeder, a collar attached to said feeder, a pen received between said feeder and said collar, a tubular reversible sleeve sliding over said collar and affording means in its reversed position to envelop said feeder and said pen.

5. A fountain pen having a tubular body with a reservoir therein, a thimble received in the end of said body and having an opening through which the ink may flow from said reservoir, a feeder having a threaded neck with a threaded connection in said thimble, a packing strip on the inner end of

said feeder and excluding ink from said
threads, a collar attached to said feeder and
affording means for rotating the same, a pen
held between said collar and said feeder, and
5 means for limiting the amount of rotation of
said collar.

In testimony whereof I have signed my

name to this specification in the presence of
two subscribing witnesses.

WILLIAM ANDREW HOUSTON.

Witnesses:

E. HERZOG,

H. M. ALGYER.