(No Model.)

J. CARR.

FOUNTAIN PEN.

No. 288,010. Patented Nov. 6, 1883.

Fig. 1.

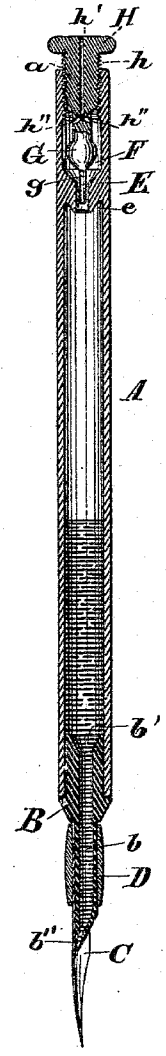
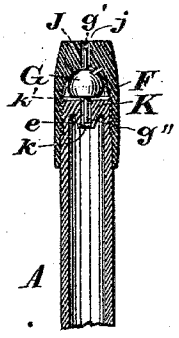


Fig. 2.



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UNITED STATES PATENT OFFICE.

JAMES CARR, OF COVINGTON, KENTUCKY.

FOUNTAIN-PEN.

SPECIFICATION forming part of Letters Patent No. 288,010, dated November 6, 1883.

Application filed March 2, 1883. (No model.)

To all whom it may concern:

Be it known that I, JAMES CARR, of Covington, in the county of Kenton and State of Kentucky, have invented a new and useful Improvement in Fountain-Pens, of which the following is a specification.

My invention relates to an improvement in the class of pens whose shaft or handle becomes an ink-reservoir, which communicates by its lower end with the pen proper or nib, and which retains the ink by pressure of the atmosphere at that end, the desired flow or delivery of ink being obtained by admission of air into the upper end of the reservoir through an orifice which can be opened or closed at will by the user.

In the accompanying drawings, Figure 1 is a longitudinal section of a fountain-pen embodying my invention. Fig. 2 shows a modification of the same by similar section of the upper portion.

A represents a cylindrical tube open at both ends. The lower end of the said tube receives a nozzle, B, whose central bore or orifice, *b*, has an enlarged inlet, *b'*, and a contracted outlet, *b''*, the latter being bent to one side, as shown, so as to deliver ink against the concave surface of a nib, C, which is secured on said nozzle by means of a sleeve, D.

Near the upper end of the reservoir is a valve-seat, E, of the represented nipple form, so as to present around its lower side an annular channel or gutter, *e*, that serves to catch and detain ink which otherwise, by sudden jar, might escape through the valve-seat into the air-chamber F.

The valve G has a pin, *g*, which occupies, without entirely filling, the valve-seat orifice, and a stem, H, whose screw-threaded periphery *h* occupies the correspondingly-screw threaded interior *a* of the reservoir. An ori fice, *h'*, that traverses said stem H, permits th entrance of air to said air-chamber throug one, two, or more branches, *h''*.

Fig. 1 shows the valve elevated and in th act of admitting air, so as to deliver ink.

Fig. 2 shows a form of my device in whic the valve-seat is at the extreme top of the res ervoir, and consists of a screw-cap, J, whos orifice *j* is tightly closed by the valve whe said cap is screwed down fast upon the valve The valve in this form has two axial pins, *g g''*, that occupy loosely the orifice *j* in the ca J and the orifice *k* in the septum K, respect ively, the said pins serving as guides for th valve. In this form the reservoir is screw threaded exteriorly, and takes the interiorly screw-threaded cap in the manner indicated

Grooves *k'* in the top of the septum K per mit descent of air whenever the cap is un screwed sufficiently to permit entrance of ai to the interior of the cap through the orifice *j*

The pen is filled by simply pouring ink int the open lower end of the reservoir after re moval of the nozzle B.

I claim as new and of my invention—

In a fountain-pen, the combination of res ervoir-handle A, nozzle B *b b' b''*, sleeve D guttered valve-seat E *e*, and valve G *g*, havin the perforated stem H *h h' h''*, substantially a set forth.

In testimony of which invention I hereunt set my hand.

JAMES CARR.

Attest:
GEO. H. KNIGHT,
S. S. CARPENTER.