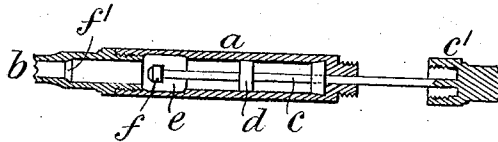


No. 813,534.

PATENTED FEB. 27, 1906.

G. SWEETSER.  
FOUNTAIN PEN.  
APPLICATION FILED SEPT. 18, 1905.



Witnesses  
Karl Fanning  
K. H. Barry

Inventor  
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By his attorneys  
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# UNITED STATES PATENT OFFICE.

GEORGE SWEETSER, OF UPPER NORWOOD, ENGLAND, ASSIGNOR TO  
THOMAS DE LA RUE AND COMPANY, LIMITED, OF LONDON, ENGLAND.

## FOUNTAIN-PEN.

No. 813,534.

Specification of Letters Patent.

Patented Feb. 27, 1906.

Application filed September 18, 1905. Serial No. 278,903.

*To all whom it may concern:*

Be it known that I, GEORGE SWEETSER, mechanical engineer, a subject of the King of Great Britain, residing at 25 Camden Hill road, Upper Norwood, in the county of London, England, have invented certain new and useful Improvements in Fountain-Pens, of which the following is a specification.

This invention relates to fountain-pens of the kind that contain their own filler, and has for its main object the provision of an arrangement by which the filling can be accomplished in a more simple manner than heretofore.

There are other improvements in detail, as hereinafter set forth.

In carrying out my invention I slightly enlarge or longitudinally groove the bore of the reservoir for a short distance at the bottom or pen end, and fit it with a lightly-packed piston and rod extending through the pen end of the pen.

The drawing is a longitudinal section of a pen made according to this invention.

*a* is the reservoir; *b*, the pen-carrier.

*c* is a longitudinal rod passing through the top end of the reservoir and terminating in a screw cap or handle *c'*.

*d* is the piston on the rod *c*, lightly packed to fit the bore for the greater part of its length. At the pen end, however, as will be seen from the drawing, the bore is enlarged at *e* or longitudinal grooves are formed in the sides thereof, so as to allow of the passage of ink around the piston when it is at the enlarged part of the bore.

When charging, the nozzle of the pen is immersed in ink and the cap or handle *c'* unscrewed and pulled back. The imprisoned air in the reservoir leaks past the piston into the bottom portion of the reservoir. Upon the rod being pushed quickly in this air is ejected, a vacuum is formed in the top portion of the reservoir, and when the piston arrives at the end of the stroke where the bore is enlarged ink flows round the piston and fills the reservoir owing to the pressure of the atmosphere.

In order that the pen may be carried in any position without leakage, the piston-rod may carry a valve *f*, which seats itself on a seating *f'* in the pen-carrier.

What I claim is—

1. In a fountain-pen the combination of a reservoir having an enlarged bore at the pen end, a longitudinal rod passing out through the rear of the reservoir and a piston fixed to the rod and lightly fitting the reservoir in the rear of the enlarged bore substantially as described.

2. In a fountain-pen the combination of a reservoir having an enlarged bore at the pen end, a longitudinal rod passing out through the rear of the reservoir, a piston fixed to the rod and lightly fitting the reservoir in the rear of the enlarged bore, a valve on the forward end of the rod and a valve-seating for the valve substantially as described.

GEORGE SWEETSER.

Witnesses:

ALFRED NUTTING,  
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