

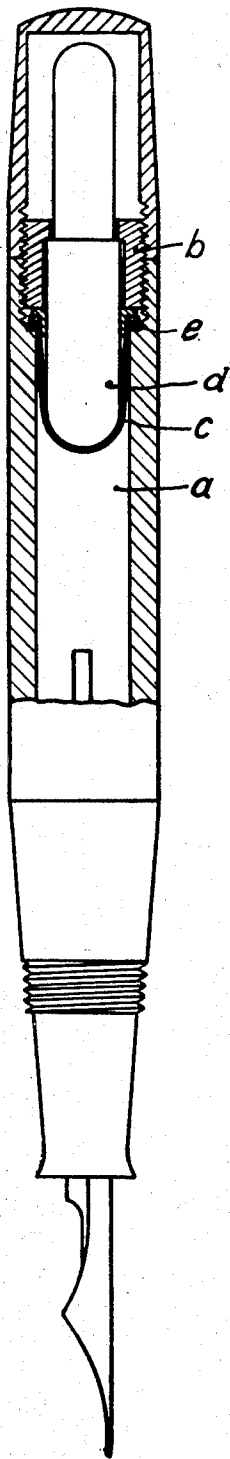
Jan. 10, 1939.

J. IVERSEN

2,143,601

FOUNTAIN PEN

Filed June 9, 1937



Inventor  
JOHANNES IVERSEN

BY *Haseltine, Lake & Co.*  
Attorneys

# UNITED STATES PATENT OFFICE

2,143,601

## FOUNTAIN PEN

Johannes Iversen, Copenhagen, Denmark

Application June 9, 1937, Serial No. 147,196  
In Denmark June 9, 1936

2 Claims. (Cl. 120—47)

The invention relates to an improvement in fountain pens of the kind which are filled through means of a piston in an ink container. The piston may be connected with a diaphragm which in its normal position may be folded up and which by depression into the ink container and the following withdrawal, will cause the ink to rise through the ascending pipe when the pen is inserted into the ink. It is known in such fountain pens to use diaphragms which can be folded up when the piston is in its upper position so as to form a tight joint at the top of the ink container. By pens made of transparent material it is especially important that the diaphragm is not visible and in the withdrawn position of the piston it should therefore be folded together and will therefore take up too much room. Furthermore it has in certain cases been necessary in previous constructions of this kind to employ a spring to maintain the piston in its withdrawn position.

According to the present invention these drawbacks are avoided in that instead of a diaphragm which can be folded together an elastic diaphragm such as rubber which surrounds the piston and which is not folded up, but will be stretched in a lengthwise direction when the piston is pressed downwards, is used to form a tight joint above. Through the elasticity of the said diaphragm the piston will be returned to its upper position so that the spring usually employed is superfluous.

The drawing shows an elevational view of the fountain pen with the rear of the barrel in section.

The preferred embodiment of the invention is illustrated in the accompanying drawing, wherein the ink container is designated by the letter

*a* and *c* is the elastic diaphragm. *b* is a socket provided with screw threads which serve to keep the diaphragm positioned and on the other end of which the cap or end piece of the pen is screwed after the filling of the same has taken place. The piston *d* is shown in its upper position.

When the pen is to be filled the end piece is removed and after the pen has been inserted in the ink the piston rod is pressed downwards and when through the elasticity of the diaphragm it has again been raised to its upper position ink will rise through the ascending pipe. The ring *e* when the socket *b* is screwed on is pressed against the flange on the diaphragm *c* and prevents this from being pressed down into the ink container if the pressure on the piston rod is too strong.

Having now described my invention what I claim as new and desire to secure by Letters Patent is:

1. A piston-operated, self-filling fountain pen comprising the combination, with a barrel forwardly provided with a writing point and at the rear portion with a longitudinally movable piston and a rear stop limiting the upward movement of said piston, of an elastic membrane closing said barrel, said piston having a head portion projecting forwardly into said barrel and freely resting on said membrane, which returns said piston into the outermost upper position when released upon having been projected forwardly into the barrel.

2. A piston-operated fountain pen according to claim 1, wherein the membrane is constantly maintained under sufficient tension by said piston thereby to prevent the formation of folds and wrinkles in said membrane.

JOHANNES IVERSEN.