

J. T. ANDERSEN.
STYLOGRAPHIC FOUNTAIN PEN.
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1,336,119.

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Fig. 1.

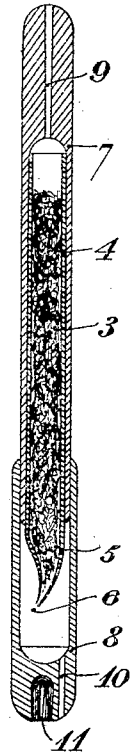
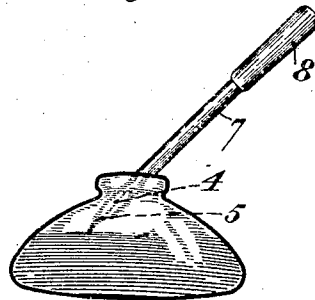


Fig. 2.



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STYLOGRAPHIC FOUNTAIN-PEN.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JÖRGEN THORVALD ANDERSEN, a subject of the King of Denmark, residing at Gundstrup, near Otterup, in the Island of Funen, in the Kingdom of Denmark, have invented certain new and useful Improvements in Stylographic Fountain-Pens, of which the following is a specification.

The object of this invention is a fountain pen of the stylographic type and which is mainly characterized thereby that the ink in the receptacle that is communicating with the writing part, preferably a tube point, is not present as a freely movable liquid mass with a liquid level but is in a kind of "latent" state, inasmuch as the said receptacle consists of capillary pores in a suitable porous mass. This mass may preferably be inserted in a tube-shaped member which fits into a holder of the shape that is commonly used for fountain pens, and from which it can be easily removed. The said tube-shaped member either terminates within or is connected with a preferably curved hollow point that constitutes the writing part, and which is also filled with a porous mass.

The filling may be effected by dipping the tube point into ink which will, on account of the capillary action of the porous mass, be quickly sucked up. The writing is due to the circumstance that the capillary action at the point of contact between the paper and the tube point is still more effective than in the porous mass within the point, and gradually, as the ink at the point is used *i. e.* as the pores are more or less emptied, ink will flow toward the point from the more saturated part of the porous mass above the point. The writing may consequently be continued until the total porous mass is moist to only a very small degree.

A form of construction of the invention is shown diagrammatically on the accompanying drawing in which Figure 1 shows the stylographic pen in longitudinal section and Fig. 2 represents, on a smaller scale, the aforesaid process of filling through the dipping of the point into the ink.

The porous mass 3, Fig. 1 constituting the ink receptacle may be of any suitable kind either solid or loose. In the form of construction as illustrated the porous mass is supposed to consist in a loose fibrous ma-

terial, such as wadding, asbestos or the like. This mass is inserted in a tube 4 of metal, ebonite, glass, china or the like, the one end of said tube being open while the other end is shaped like a cone 5 with a capillary writing aperture 6. The point of the cone is preferably curved so that the plane of the aperture 6 at the normal inclined writing position of the pen, is flush with the plane of the paper, which will avoid scratching and uncertainty as to the flowing of the ink.

The tube 4 fits into the corresponding hollow space of a holder 7, which is of the usual fountain pen shape and arranged to receive, as shown, at the writing end as well as at the opposite end, the usual cap 8.

This latter end and the cap 8 are provided with air channels 9 and 10 respectively, so that the mass 3, constituting the ink receptacle, is subjected to the pressure of the air at both ends. Further the cap is provided with a wiping device 11.

The details, as shown, are not essential and may be varied in many ways. Fig. 2 will be easily understood from what has been explained in the preamble of the specification. The filling may of course be effected by means of a squirting or sucking device or by complete immersion, but a characteristic point and one that is of special importance with regard to cleanliness is, that the filling may be effected in the way as shown, which is totally impossible with other fountain pens.

I claim:

1. A fluid writing device comprising a hollow elongated barrel terminating at one end in an apertured writing point and provided at its other end with an apertured head, and a loosely packed capillary porous mass substantially filling the interior of said barrel and saturated with writing fluid, the fluid supply within the mass being normally retained by capillary attraction without offering any free liquid level or surface and the fluid being withdrawn from said mass by the capillary attraction exerted by the paper when the pen is in use.

2. A device of the kind defined by claim 1 in which the barrel consists of a tube shaped member carrying the writing point, and a tubular holder carrying the apertured head, the major portion of the tube shaped member being located within the tubular holder.

3. A device of the kind defined by claim 1 in which the writing point consists of a hollow cone-shaped member which is curved at the point, so that the aperture of the point is obliquely arranged relatively to the axis of the barrel.

4. A fluid writing device comprising a hollow tube shaped member open at one end and provided at its opposite end with a substantially cone-shaped, hollow, apertured writing point, a portion of which is curved to bring the aperture into oblique arrangement relatively to the axis of the member, a loosely packed capillary porous mass sub-

stantially filling the interior of said member and saturated with writing fluid and a hollow tubular holder inclosing the major portion of said member and having an apertured head arranged adjacent to the open end of said member, the member and holder being detachably connected.

In testimony whereof I affix my signature in presence of two witnesses.

JÖRGEN THORVALD ANDERSEN.

Witnesses:

ERNEST BOUTARD,
N. BUSCH-JENSEN.