(No Model.)

M. A. ALVES.

RESERVOIR ATTACHMENT FOR PENS.

No. 589,401. Patented Sept. 7, 1897.

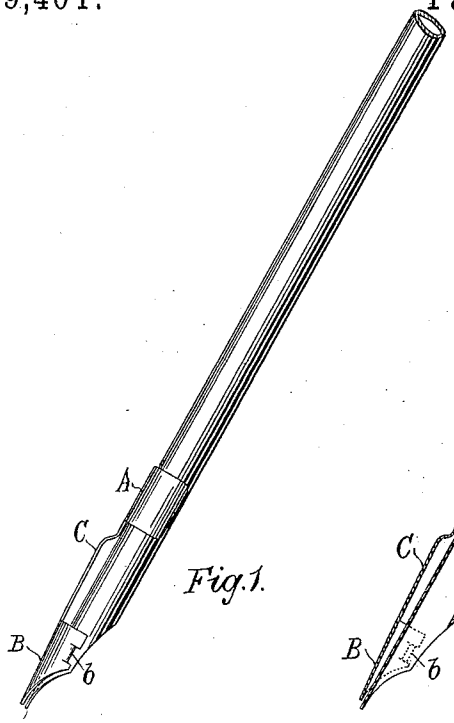


Fig. 1.

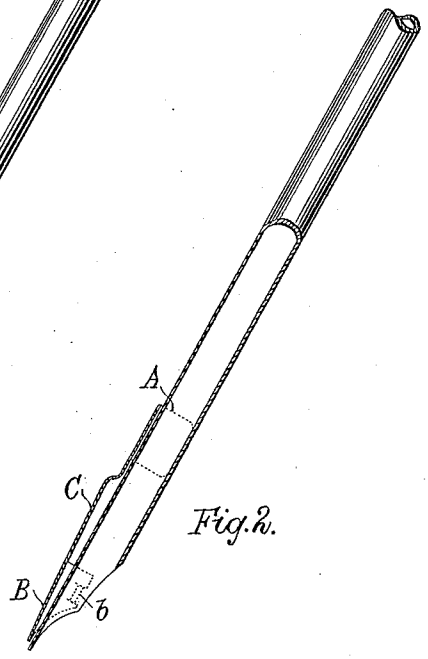


Fig. 2.

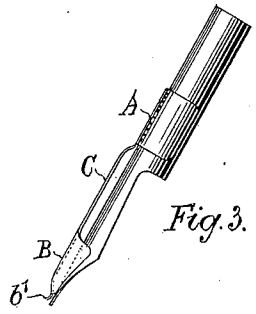


Fig. 3.

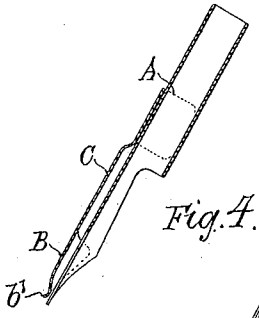


Fig. 4.

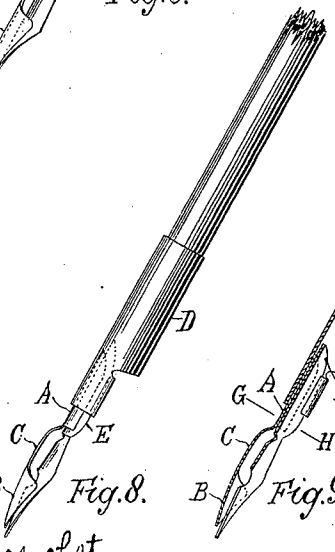


Fig. 8.

Fig. 9.

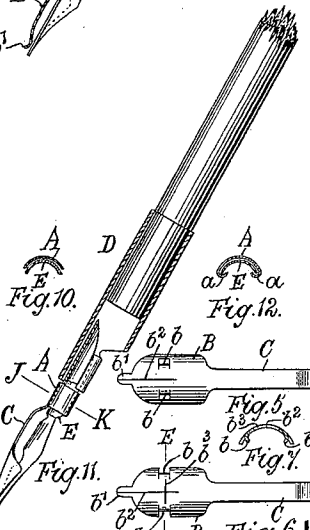


Fig. 11.

Fig. 10.

Fig. 12.

Fig. 5.

Fig. 6.

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UNITED STATES PATENT OFFICE.

MALCOLM ARBUTHNOT ALVES, OF LONDON, ENGLAND.

RESERVOIR ATTACHMENT FOR PENS.

SPECIFICATION forming part of Letters Patent No. 589,401, dated September 7, 1897.

Application filed January 23, 1897. Serial No. 620,408. (No model.)

To all whom it may concern:

Be it known that I, MALCOLM ARBUTHNOT ALVES, a subject of the Queen of England, and a resident of No. 43 Cromwell Houses, Queen's Gate, London, in the county of Middlesex, England, have invented an Improved Reservoir Attachment for Pens, of which the following is a specification.

This invention relates to reservoir attachments for pens of the kind which are fitted on the upper or convex side of the nib or writing part of the pen by means of an end part made in the form of a split cylinder or segment of a cylinder or by means of spring or other clips.

Devices of this character have hitherto been made of a stiff and inelastic material, so that pens fitted therewith, and especially quill pens, are stiff and hard to write with, and after a little use the material becomes deformed or bent and the device is then quite useless for its purpose.

The object of this invention is to so construct pen reservoir attachments of the class hereinbefore described as to obviate the disadvantages indicated and to produce a reservoir attachment which allows the flexibility required, especially in quill pens, and which can be fitted to steel or other pens or nibs of different sizes and of various shapes.

According to this invention I connect the attachment-end part of the device to the spoon or scoop shaped reservoir thereof by means of a thin strip of springy metal. If found desirable, the nib end of the spoon or scoop shaped reservoir may be split longitudinally or transversely.

In the accompanying drawings I have shown how my invention may be carried into practice and have shown various modifications and the method of adaptation to various kinds of pens and penholders. The same letters of reference, where they occur, are used to denote the same or corresponding parts in all the figures.

Figures 1 and 2 are respectively elevation and section of a part of an ordinary quill pen with my reservoir attachment fitted thereon. Figs. 3 and 4 are similar views of a barrel-pen with a similar modified reservoir attachment. Figs. 5, 6, and 7 are modifications of the device illustrated in Figs. 3 and 4. Figs. 8 and 9 are respectively elevation and section of a steel or other nib or slip pen. Fig. 10 is a cross-section taken on the line G H of Fig. 9. Fig. 11 is a view similar to Fig. 9 of a modification. Fig. 12 is a cross-section taken on the line J K of Fig. 11.

Figs. 1 and 2 are respectively longitudinal elevation and section of part of an ordinary quill pen with my reservoir attachment fitted thereon. A is the rear or attachment end, which in this case is made in the form of a split cylinder. B is the spoon or scoop shaped reservoir, which is shaped so as to conform to the shape of the nib or writing end of the quill pen, and *b b* are ridges or projections of any suitable kind formed on or secured to the inner side of the reservoir B to keep the latter at the proper capillary distance from the writing end of the pen when fitted thereto. C is a thin and preferably narrow strip of springy metal connecting the two parts A and B, or the whole device may be made in one piece from a metal which is sufficiently resilient to allow of the requisite flexibility. The device is fitted to the pen by passing the split-cylinder end A thereover until the reservoir B lies in proper position over the writing end of the quill pen, where it is maintained at its proper capillary distance by the spring part C and the ridges or projections *b* on its under side.

Figs. 3 and 4 are similar views of a magnum-bonum or barrel-pen with a slightly-modified reservoir attachment. In these figures the reservoir B is shown somewhat in the shape of a scoop or shovel with a forward prolongation or tongue *b'*, which is turned slightly upward, as shown in the drawings. This modified form is applicable to quill pens, and both this form and that illustrated in Figs. 1 and 2 can be fitted to ordinary holders taking steel or other nibs.

Figs. 5, 6, and 7 show modifications of the device illustrated in Figs. 3 and 4. Fig. 5 is a plan showing the device with a central longitudinal split b^2, which, however, may be located to one side, if so desired, instead of centrally, as shown, and more than one such split b^2 may be used, if preferred. The device shown in Fig. 5 is furthermore provided with two or more ridges or projections *b*, which are formed by stamping two strips or tongues in

its body and turning these under in the manner shown by Fig. 7, which is a cross-section through the line E F of Fig. 6. Fig. 6 is a view similar to Fig. 5 and differs only in having a transverse split b^3 in addition to the longitudinal split b^2 and in having the ridges b formed by turning under strips stamped or cut in its outer edges instead of in its body, as in Fig. 5.

Figs. 8 and 9 are respectively longitudinal elevation and section of a steel or other nib or slip pen with my reservoir attachment fitted thereto, and which is secured by slipping it, together with the slip end of the nib, into the shank D in the ordinary way. In this case the rear or attachment end A of the device is made so as to conform to the shape of and lie upon the slip end E of the nib, as shown in Fig. 10, which is a cross-section taken on the line G H of Fig. 9.

Fig. 11 is a view similar to Fig. 9, but in this case the device is secured to the slip end E of the nib by means of clips or turned-under ends a, as shown in Fig. 12, which is a cross-section taken on the line J K of Fig. 11.

The longitudinal and transverse splits described with reference to Figs. 5 to 7 can be applied in the same manner to any of the other forms of my invention.

In all the forms of my invention it is essential that the reservoir B should be connected to the attachment end A by a springy-metal connection C, so that when in use the nib end of the device will partake of all the movements of the nib or writing end of the pen and the requisite flexibility thus secured.

What I claim as my invention, and desire to secure by Letters Patent, is—

A reservoir attachment for pens comprising a split cylindrical attachment end, adapted to be fitted on the upper or convex side of the pen, and connected by a narrow strip of springy metal to a scoop-shaped reservoir, conforming to the shape of the nib or writing end of the pen and having ridges on the inner side to keep it at the proper capillary distance therefrom, substantially as described.

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