

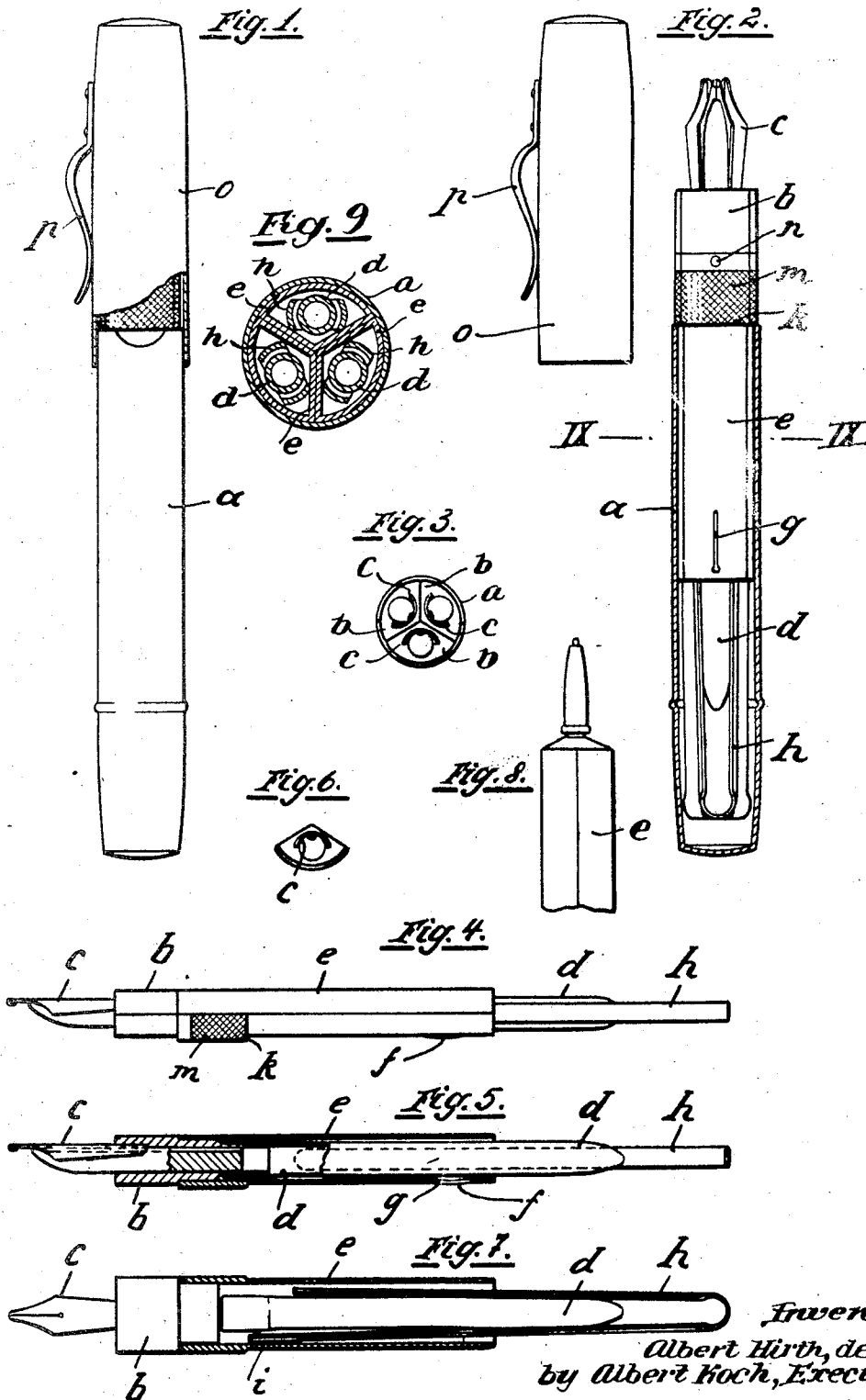
Jan. 24, 1939.

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2,144,658

MULTIPLE FOUNTAIN PEN

Filed Aug. 17, 1937



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UNITED STATES PATENT OFFICE

2,144,658

MULTIPLE FOUNTAIN PEN

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Application August 17, 1937, Serial No. 159,478
In Germany March 2, 1936

3 Claims. (Cl. 120—42)

This invention relates to fountain pens and more especially to the combination of a plurality of fountain pens into a single writing implement. It has particular reference to multiple fountain pens, in which the individual pens may be filled with inks of different kinds or colors.

It is an object of this invention to provide a multiple fountain pen, in which the space available within the barrel, in which the individual pens are accommodated, is utilized in a particularly effective manner, while the individual pens are readily exchangeable and of particularly simple and strong design and arranged for easy manipulation.

In the fountain pen according to this invention the individual pens are so designed that on being assembled in the barrel, they fill the barrel practically completely over a length sufficing to reliably guide them in the barrel. To this end, the shafts of the individual pens carrying the metal pens have the cross section of a cylinder segment, the curved walls of which apply themselves against the inner wall of the barrel, while the other two walls, which are substantially plane and extend in parallel to the axis, are applied against the adjoining pens.

By thus constructing the individual pens, it is possible to shift each of them individually so as to project from the barrel without the firm seat of this pen in the barrel being endangered.

In the drawing affixed to this specification and forming part thereof fountain pens embodying the invention are illustrated diagrammatically by way of example.

In the drawing,

Fig. 1 is an elevation, partly in axial section, of such multiple fountain pen, with the cap mounted on the barrel.

Fig. 2 is an axial section of the barrel with the individual pens mounted therein, the cap being shown separately in elevation.

Fig. 3 is an end view of the barrel and the pens enclosed therein.

Fig. 4 is an elevation of an individual fountain pen, three of which are shown in Fig. 3 to be enclosed in the same barrel.

Fig. 5 is an axial section of the pen shown in Fig. 4 and

Fig. 6 is a corresponding end view, while

Fig. 7 is an axial section at right angles to Fig. 5.

Fig. 8 is an elevation of a modified form, in which the pen of Fig. 4 is replaced by a pencil.

Fig. 9 is a cross section on the line IX—IX in Fig. 2.

Referring to the drawing and first to Figs. 1 and 2, *a* is the barrel and *b*, *b* are the bodies or shafts of three fountain pens in this barrel, each carrying a metal pen *c* and an ink guide of some suitable construction. On the rear end of each shaft *b* is mounted a collapsible rubber sac *d*, and *e* is a protective sleeve mounted on the shaft *b* and surrounding the greater part of the sac. The shafts *b* and protective sleeves *e* are formed with a cross section such that the three shafts and sleeves together completely fill the circular cross section of the barrel, as can best be seen in Figs. 3 and 6, each shaft and sleeve having the cross section of a cylinder segment, the straight sides of which enclose an angle of about 120°.

In order to create sufficient friction between the barrel and the individual pens to prevent these latter from dropping out, the protective sleeves *e* may be formed with a resilient bulging projection *f* (Figs. 4 and 5), being for instance slit longitudinally at *g*, and the edges adjoining the slit being slightly bent outwardly.

In order to enable the rubber sac *d* to be readily filled, it is combined with a compression device of a known type consisting of a metal strip *h* doubled up and having one end fixed to the inner wall of the protective sleeve at *i*, while the other arm embraces the sac, as shown in Fig. 7. By compressing the metal strip and forcing the free arm towards the fixed arm, the rubber sac can be compressed almost over its entire length, and this is rendered particularly easy by the fact that the rear half of the strip *h* projects from the sleeve *e*, so that the pen to be filled need only be withdrawn from the barrel in order to be ready for filling.

The protective sleeves *e* are formed at *k* with shoulders forming stops which prevent the sleeves from being pushed too far into the barrel. The projecting parts of the protective sleeves *e* are preferably roughened or ribbed at *m* to enable them to be firmly gripped with the fingers, and a color mark *n* may be provided to indicate the color of the ink in each pen.

The writing pens *c* are preferably so mounted in the shafts that they are turned outwardly and that therefore each pen can be put to immediate use without it being necessary to shift it in the barrel. If, however, such axial shifting of an individual pen should prove desirable, it will be easy to so shift each pen by means of the finger resting on the roughened portion *m*.

A cap *o* with a clip *p* fixed to it may be mounted on the barrel *a* as usual.

The number of individual pens assembled in a single barrel is not limited, and two or four individual pens may be so combined. One or more fountain pens may be replaced by ordinary non-filling pens or pencils, the cross section of which resembles that of the fountain pen or pens combined with it. A pencil of this kind is illustrated in Fig. 8.

Obviously the barrel, which is here shown as a cylinder of circular cross section, might also have an elliptical or other cross section. The individual pens or pencils assembled in the barrel need not possess uniform cross sections throughout, but may be formed with reduced portions, provided that they are always firmly seated in the barrel.

It is wished to be understood that it is not desired to be limited to the exact details of construction shown and described for obvious modifications will occur to a person skilled in the art.

What is claimed is:

1. A multiple fountain pen comprising in combination, a barrel, a plurality of individual fountain pen holders assembled in said barrel for individual longitudinal displacement in frictional contact with each other, a pen in each pen holder, the ends, carrying the pens, of all pen

holders, when in inoperative position, projecting sufficiently from said barrel to allow being individually gripped and advanced into writing position.

2. The multiple fountain pen of claim 1, in which a stop is formed on the projecting part of each pen holder, said stop extending radially across the edge of the barrel so as to prevent the holder from being pushed farther into the barrel.

3. A multiple fountain pen comprising in combination, a barrel, a plurality of individual fountain pen holders in said barrel, all projecting substantially uniformly from said barrel, the projecting portion of each holder being formed with a stop, a sleeve forming part of each holder extending into the barrel, the sleeves of the individual fountain pens having cross sections such as to completely fill together the inner cross section of said barrel, a compressible sac forming part of each individual fountain pen, and a prong-like compressing means embracing said sac and projecting from the rear end of said sleeve, one end of said compressing means being fixed to said sleeve.

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*Executor of the Last Will and Testament of
Albert Hirth, Deceased.*