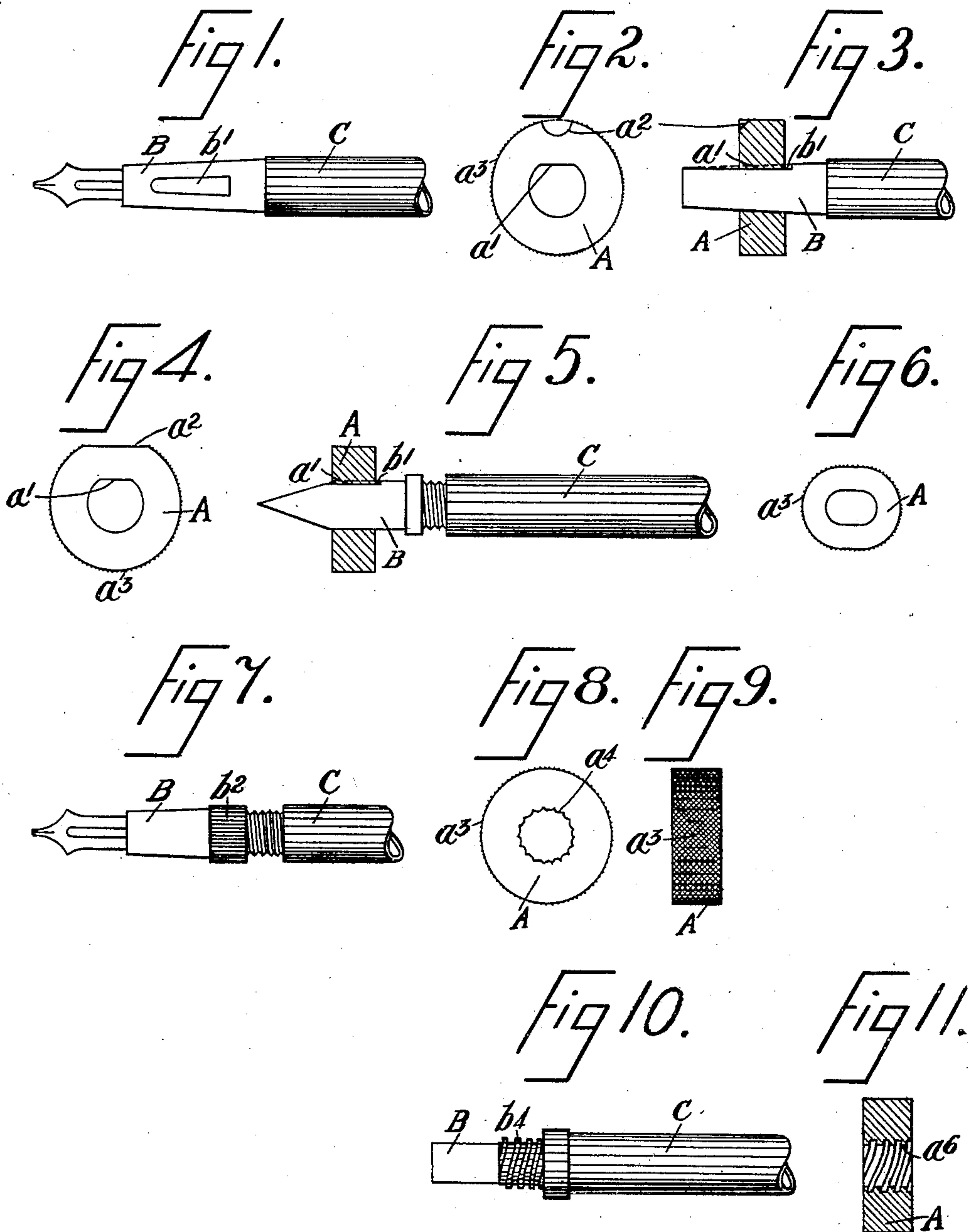


No. 832,239.

PATENTED OCT. 2, 1906.

A. F. COLE.
OPENER FOR FOUNTAIN AND SIMILAR PENS.
APPLICATION FILED MAY 8, 1905.



WITNESSES
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UNITED STATES PATENT OFFICE.

ALBERT FREDERICK COLE, OF KIDDERMINSTER, ENGLAND.

OPENER FOR FOUNTAIN AND SIMILAR PENS.

No. 832,239.

Specification of Letters Patent.

Patented Oct. 2, 1906.

Application filed May 8, 1905. Serial No. 259,363.

To all whom it may concern:

Be it known that I, ALBERT FREDERICK COLE, a subject of the King of Great Britain, residing at Clovelly, Sutton Park Road, Kidderminster, in the county of Worcester, England, have invented certain new and useful Improvements in Openers for Fountain and Similar Pens, of which the following is a specification, such as will enable those skilled in the art to which it appertains to make and use the same.

My invention consists of a removable attachment to facilitate the removal of the screwed portion of a fountain, stylographic, or other reservoir pen, which portion usually holds the nib and acts as a stopper to the ink-reservoir or remaining portions of the pen.

The need of my invention arises from the difficulty generally experienced at present owing to the stopper portion previously referred to becoming fast through the clogging of the ink and various causes and, further, from the fact that the small stopper portion, hereinafter called the "stopper," does not provide sufficient purchase to enable it to be removed from the reservoir without considerable difficulty and strain and the liability of damaging the nib.

In order that my invention may be clearly understood and more easily carried into practice, I have appended hereunto a sheet of drawings, upon which I have illustrated the nature of my said improvements.

Figure 1 is a view of a fountain-pen in which the stopper is provided with a facet for receiving the opener. Fig. 2 is an elevation of the opener for use in conjunction with the pen shown by Fig. 1; Fig. 3, a side view similar to Fig. 1, part of the construction being in section. Fig. 4 is a similar elevation to that of Fig. 2, but illustrating a modification in the outer configuration of the opener; Fig. 5, a view similar to Fig. 3, but showing a modification. Fig. 6 is an elevation of another form of opener. Fig. 7 is an elevation of a fountain-pen, illustrating a modification. Fig. 8 is a front elevation of the opener to be used in conjunction with the pen shown by Fig. 7. Fig. 9 is a side elevation of Fig. 8. Fig. 10 is an elevation of the stopper part of a pen, illustrating a modification in the part for receiving the opener; and Fig. 11 is a cross-sectional elevation of the opener for use in connection with the stopper illustrated in Fig. 10.

The manner of carrying out the first form of my improvement as illustrated by Figs. 1 to 5 is as follows: I construct a ring A of vulcanite, celluloid, or other suitable material, which is hereinafter called the "opener" and which is of circular form excepting that it is provided with one or more inner and outer facets a' a^2 . The outer facet or facets a^2 are preferably upon the same portion or side as the internal facet or facets a' . The outer circumference a^3 of the opener is preferably roughened, while the stopper portion B of the pen C has also a plain surface or surfaces b' upon a portion of its circumference corresponding with the internal facet or facets of the opener A. The opener A can be readily placed in position on the stopper portion B of the pen, the outer facet or facets a^2 enabling the required position to be easily seen or manipulated by the feel of the fingers. The opener A when in place affords an excellent grip to enable the stopper to be easily removed from the reservoir C. The stopper B and opener A may be formed of oval or other suitable shape (see Fig. 6) to perform the same result.

In a second modification (illustrated by Figs. 7, 8, and 9) I flute the opener A internally at a^4 and the stopper externally at b^2 with one or more flutings to serve the same purpose as the before-described facet or facets. When a large number of flutings are used, the depressions are so small as to cut but slightly into the surfaces of the opener A and stopper B, such flutings b^2 , moreover, assisting in the ease of writing.

In the fourth modification (illustrated in Figs. 10 and 11) I screw the portion of the stopper to b^4 and the internal diameter a^6 of opener A with preferably quick-screwing left-hand threads. The stopper B and opener A may be formed with shoulders on one or both or formed with a taper screw. The edges of threads b^4 of stopper may be roughened to give a pleasant grip to the pen when in use. The object of providing the quick-threads on the opener and stopper or lesser number of such threads to the number of threads screwing into the reservoir insures the removal of opener without undue strain during the screwing operations.

The advantages of the herein-described attachment or opener being separate from the pen are great, because the pen does not require to be loaded by any excrescences, which

would be objectionable when using the same, but rather any faceting or formations and cutting that this invention necessitates upon the nib or stopper portion of the pen would
5 tend to give a more comfortable grip to the fingers when writing. The opener may be kept with the filler, as the use of both are required at the same time.

Although I have shown a number of forms
10 of the opener A, it will be observed that they all consist of a ring or band adapted to be connected with or mounted on the stopper B in such manner as to engage said stopper, so that the latter can be turned thereby, and
15 any suitable band or ring that will accomplish this result may be employed.

Having fully described my invention, what

I claim as new, and desire to secure by Letters Patent, is—

A pen of the class described provided with
20 a stopper having an irregular surface in cross-section and an opener comprising a band or ring detachably mounted on said stopper and provided with a corresponding internal irregular surface whereby the stopper may be
25 turned, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 26th day of April, 1905.

ALBERT FREDERICK COLE.

Witnesses:

COVERT BARKER,
SIDNEY GEO. WEBB.