



UNITED STATES PATENT OFFICE

MAX HEERKLOTZ, OF HAMBURG, GERMANY, ASSIGNOR TO FIRM SIMPLO FULLFEDER
GESELLSCHAFT VOSS, LAUSEN & DZIAMBOR, OF HAMBURG, GERMANY

CLOSURE FOR SELF-FILLING PENS

Application filed May 29, 1930, Serial No. 457,146, and in Germany September 4, 1929.

This invention relates to a closure for a fountain pen, which comprises a rubber tube adapted to be compressed by means of a blade spring and a pressure pin provided on the end of the holder.

It is known in fountain pens adapted to be filled with the aid of a piston-like device, to provide a closing cap on the rear end which, during the filling of the holder, need not be completely unscrewed, a stop being provided for limiting the unscrewing.

As compared with the known constructions, the cap, according to the invention is used for putting the blade spring under tension. This cap is not screwed onto the rear end of the holder, but onto the pressure pin proper. A head screw having a left handed screw thread is screwed into the pressure pin and a screw threaded sleeve is screwed onto this head screw and serves as lining for the closing cap. The length of the stroke of the cap depends on the distance which this sleeve is screwed back, the stroke being sufficient to compress the ink tube.

Fountain pens provided with such closures can be easily operated by one-armed persons. Another advantage of this closing cap is that the air can escape from the inner side of the holder to the outer side.

An embodiment of the invention is illustrated by way of example in the accompanying drawings in which:

Fig. 1 shows the fountain pen in longitudinal section.

Fig. 2 shows in section the rear end of the fountain pen the cap being unscrewed.

Fig. 3 shows in section the rear end of the fountain pen the unscrewed cap pressed inwardly.

According to the invention a square block *a* is inserted in a square bore in the rear end of the holder *b*. An annular nut *c*, threaded internally and externally, is screwed in the outer end of the holder. The inner end of a plug *d* having external right hand screw thread is screwed into said nut *c* and bears against the outer end of the square block *a*. This plug *d* has a bore in its outer end internally threaded with left hand screw thread. A screw *e* with a large head is

screwed into this bore of the plug. An externally screw threaded sleeve *g* is screwed with its internally screw threaded front end onto said plug *d*, and an internally threaded cap, screwed onto said sleeve, bears with its end against a flange *g'* at the front end of the sleeve *g*.

The rear end *h₁* of a blade spring *h* engages within a conical cavity *a₁* of the square block *a* secured in position by the annular nut *c* screwed into the holder *b*. After the sleeve *g* has been screwed on the screw plug *d* and the head screw *e* screwed into this plug, the cap *f* is screwed tightly onto sleeve *g*.

The sleeve *g* with the cap *f* can be unscrewed on plug *d* until the collar of sleeve *g* encounters the head of the screw *e*, as shown in Fig. 2, ink being thereby sucked into the ink tube. The plug *d* and square block *a* can be pressed inward the distance *i* (Figs. 2 and 3) so that the blade spring *h* is pressed against the ink tube to fill the pen.

I claim:—

A fountain pen, comprising in combination with a holder, a rubber tube in said holder, a blade spring adapted to compress said tube, a square block movably mounted in the end of said holder adapted to actuate said spring, a screw plug having external right hand screw threads and a bore in the outer end of said plug having internal left hand screw threads bearing against the outer end of said square block, a screw threaded sleeve screwed on said screw plug, a screw in said sleeve and screwed into said screw plug and a closing cap adapted to screw tightly on said screw sleeve.

In testimony whereof I affix my signature.
MAX HEERKLOTZ.

90

95

100