No. 756,778.

PATENTED APR. 5, 1904.

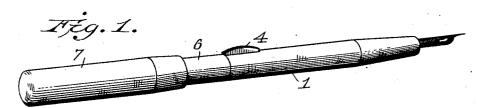
大學的問題自己對於中國一般與普灣的經濟體的自然可能與對關於

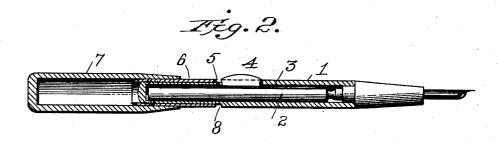
## R. CONKLIN.

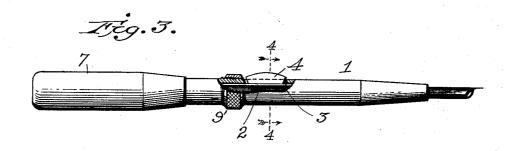
## SELF FILLING FOUNTAIN PEN.

APPLICATION FILED MAR. 4, 1904.

NO MODEL.







Itég. 4.

WITNESSES

Edwin L. Yewell On D. Ballauf.

INVENTOR

Roy Conklin

## UNITED STATES PATENT OFFICE.

ROY CONKLIN, OF TOLEDO, OHIO.

## SELF-FILLING FOUNTAIN-PEN.

SPECIFICATION forming part of Letters Patent No. 756,778, dated April 5, 1904.

Application filed March 4, 1904. Serial No. 196,562. (No model.)

To all whom it may concern:

Be it known that I, Roy Conklin, a citizen of the United States, residing at Toledo, in the county of Lucas and State of Ohio, have invented new and useful Improvements in Self-Filling Fountain-Pens, of which the following

is a specification.

This invention relates to fountain-pens; and its object is to improve the construction of 10 that class of fountain-pens known as "selffilling"—such, for example, as the pen covered by my prior patent, No. 685,258, dated October 29, 1901. In that pen the ink-reservoir consists of a slender rubber bag inclosed 15 in a rigid barrel or holder and communicating at one end with the pen-section. A presserbar is laid along one side of the bag between it and the barrel, and a rib on the bar projects out through a slot in the barrel, so that by pressing on the rib the bag can be compressed. If when so compressed the pen is dipped into a supply of ink and the pressure on the rib is then relieved, the resiliency of the rubber bag causes it to resume its former expanded shape, 25 and in so doing it sucks itself full of ink. A locking-ring passing through a slot in the rib is then turned to prevent accidental inward movement of the rib and presser-bar until it is desired to refill the pen.

The present invention consists in a new lock-

ing device for the presser-bar.

It comprises a tubular member rotatable on the outside of the barrel or holder, both of said parts being provided with interoperating 35 portions which effect a longitudinal movement of the tubular member simultaneously with its rotation and cause it to approach toward or recede from the rib on the presserbar. By locating the rotatable member quite near to one end of the ribit will when rotated in one direction clamp the rib tightly between its adjacent edge and the opposite end of the slot in the barrel through which the rib projects. Rotation in the opposite direction will 45 release the rib and leave the presser-bar free to be pushed in to collapse the ink-reservoir.

In the accompanying drawings, Figure 1 is a perspective view of a pen embodying my invention. Fig. 2 is a partial longitudinal sec-50 tion of the same. Fig. 3 shows a modifica-

tion of the invention, and Fig. 4 is a crosssection on the line 4 4, Fig. 3, on an enlarged

The barrel 1 is of hard rubber or other rigid material. It incloses the ink-reservoir 2 of 55 elastic rubber. The presser-bar 3 lies along one side of the reservoir and has a rib 4 passing out through a slot 5 in the barrel. Adjacent to one end of the rib is located the tubular locking device, which is preferably a sleeve 60 6, concentric with the barrel and extending from one end of the rib to or about to the end of the barrel. For some portion of its length the sleeve has an internal or female screwthread engaging with an external or male 65 screw-thread formed on the outer surface of the barrel. It follows that when the sleeve is rotated it will move lengthwise on the barrel, and one end will come in contact with the adjacent end of the rib 4 and forcing the rib 70 lengthwise in its slot in the barrel will clamp it tightly against the opposite end of said slot. The rib cannot then be pushed in to collapse the ink-reservoir, but will be firmly locked. To insure this result, the ends of the rib are 75 preferably undercut a little, as shown, so as to slightly overlap the ends of the sleeve and the slot. To unlock the rib, the sleeve is given one or two turns in the opposite direction, which back it away from the rib and 80 leave the latter free to be pushed in.

In order that the cap 7 may fit both the tapered end of the sleeve and opposite end of the barrel, the outside diameter of the sleeve must be no greater than the opposite end of 85 the barrel. That portion of the barrel surrounded by the sleeve must, therefore, be reduced in diameter to receive the sleeve. This reduced portion extends to a point slightly beyond the end of the rib, where a shoulder 8 90 is formed, which the end of the sleeve almost touches when the rib is locked, thus preserving the uniform size of the barrel from end to end. For convenience in manufacture both ends of the sleeve are preferably left open, 95 and when the rib is locked the end of the sleeve farthest from the rib will be preferably

flush with the end of the barrel.

Instead of a long tube or sleeve I may use a short tube or ring 9, as shown in Fig. 3, cov- 100 ering only a small screw-threaded portion of the barrel and having an internal screw-thread engaging therewith. The ring is preferably large enough to encircle the barrel without reducing the latter in diameter. One edge of the ring is close to one end of the rib, so that when the ring is screwed toward the rib it will lock it against the opposite end of its slot.

Having thus described my invention, what

10 I claim is—

1. In a self-filling fountain-pen, the combination with a barrel having a slot, of an elastic ink-reservoir in said barrel, a presser-bar having a rib projecting through said slot, and rotatable means for forcing said rib length-

wise against one end of said slot.

2. In a self-filling fountain-pen, the combination with a barrel having a slot, of an elastic ink-reservoir in said barrel, a presser-bar having a rib projecting through said slot, and a rotatable locking member abutting against one end of said rib and operating to force said rib lengthwise against the opposite end of said slot.

25 3. In a self-filling fountain-pen, the combination with a barrel having a slot, of a flexible ink-reservoir in said barrel, a presser-bar having a rib projecting through said slot, a tubular

locking member rotatable on said barrel, and means for effecting a longitudinal movement 30 of said locking member when rotated to cause it to engage with one end of said rib.

4. In a self-filling fountain-pen, the combination with a barrel having a slot and provided with external screw-threads, of a flexi- 35 ble ink-reservoir in said barrel, a presser-bar having a rib projecting through said slot, and a tubular rib-locking member rotatable on said barrel and having internal screw-threads

engaging with those on the barrel.

5. In a self-filling fountain-pen, the combination with a barrel having a slot and provided with external screw-threads, of a flexible ink-reservoir in said barrel, a presser-bar having a rib projecting through said slot, and 45 provided with undercut ends, and a tubular rib-locking member rotatable on said barrel and having internal screw-threads engaging with those on the barrel.

In testimony whereof I have signed my name 50 to this specification in the presence of two sub-

scribing witnesses.

ROY CONKLIN.

Witnesses:

THOMAS DURANT,
ALEXANDER S. STEWART.