G. F. BRANDT.

FOUNTAIN PEN.

APPLICATION FILED AUG. 19, 1912.

1,072,073.

Patented Sept. 2, 1913.

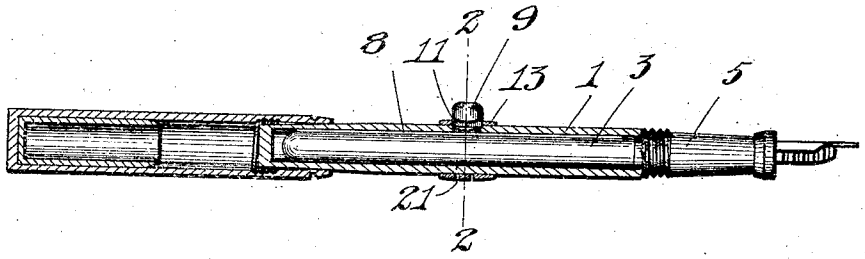

Fig. 1.

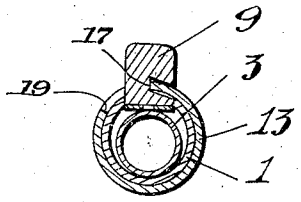

Fig. 2.

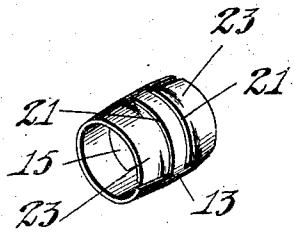

Fig. 3

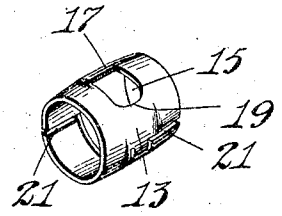

Fig. 4.

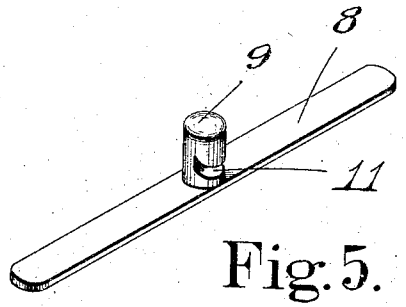

Fig. 5.

WITNESSES.

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UNITED STATES PATENT OFFICE.

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FOUNTAIN-PEN.

1,072,073. Specification of Letters Patent. Patented Sept. 2, 1913.

Application filed August 19, 1912. Serial No. 715,757.

To all whom it may concern:

Be it known that I, GEORGE FRANKLIN BRANDT, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented new and useful Improvements in Fountain-Pens, of which the following is a specification.

This invention relates to fountain-pens and more particularly to fountain-pens of the self-filling type. In these pens it is customary to provide within the barrel of the pen a collapsible ink-container and a presser-bar located between the outer wall of the container and the inner wall of the barrel, said bar being adapted to be pressed against the wall of the container, when desired, in order to collapse said container preparatory to the filling operation. In such pens it is essential first that the presser bar shall be capable of being readily depressed at any time without the manipulation of any complicated or inconveniently operable parts, and second that during the writing operation the presser-bar be held securely against the inner wall of the barrel so that it cannot by any possibility exert pressure upon the ink-container, since the slightest pressure or blow upon the container will cause ink to drip from the pen point.

The general object of the present invention is to produce a fountain-pen of cheap construction in which these two features are embodied.

Referring now to the accompanying drawings, Figure 1 is an elevation of a fountain-pen in which the present invention is embodied, the barrel and certain other parts being shown in section, Fig. 2 is a cross-section of the pen on the line 2—2 of Fig. 1, Figs. 3 and 4 are perspectives of the frictional locking spring-band viewed from opposite sides, and Fig. 5 is a perspective of the presser-bar and press-button.

Located in the barrel 1 of the pen is a rubber ink-container 3 which is connected in the usual manner with the section 5 in which the pen-point is mounted, it being understood that by pressing upon the ink-container to force out the air, and then immersing the pen-point in an ink supply and removing the pressure, the ink-container will be automatically filled. Pens of this type are called "self-fillers," and the construction briefly outlined above is old and well known.

The presser-bar has fast thereto or integral therewith a press-button 9 provided with a slot 11, said button being designed to protrude through an aperture in the barrel of the pen as shown in Figs. 1 and 2. This slot, it should be noted, is comparatively wide, and its lower wall is at all times below the surface of the barrel. In order to lock the press-button securely in raised position, a spring band 13 which has frictional contact with the barrel 1 is provided with an elongated aperture 15 having a straight edge 17 to enter the slot 11 and a curved edge 19 to contact with the rounded surface of the press-button. The locking spring band is preferably of metal and, as stated above, has frictional contact with the barrel so that it is securely held in any angular position to which it may be moved. Any convenient construction whereby this result is attained may be employed; and, in the illustrated embodiment, L-shaped slits 21 are cut through the band approximately opposite the aperture 15; and these slits form spring-tongues 23 which may be bent slightly inwardly, if desired, so as to grip the barrel very securely.

The parts are assembled by removing the section 5 and the attached ink-container 3, slipping the band 13 over the barrel and pushing it along until the elongated aperture 15 registers with the aperture in the wall of the barrel. The presser-bar is then put in place and the band rotated to lock said bar against the inner wall of the barrel. In the subsequent manipulation of the device the band 13 is grasped and turned about the axis of the barrel to move its edge 17 into and out of the slot in the press-button 9.

It has been previously proposed to slide a rigid, apertured sleeve along the barrel of the pen so as to cause the side edges of the aperture to engage oppositely disposed notches in the press-button, but so far as I am aware I am the first to make use in a fountain-pen of an angularly movable, frictionally held, locking spring band having an aperture one of the end edges of which may be moved into and out of a slot in the press-button.

Attention is directed particularly to the shape and direction of extent of the slot 11 and to the manner in which it permits the band to force the button into its extreme upper position and thereby hold the presser-bar tightly against the inner wall of the barrel of the pen. The slot 11 has a width

greater than the thickness of the coöperating portion of the band which enters it and extends, not circumferentially of the barrel of the pen, but obliquely to the axis of the button; and its lower wall, as shown in Fig. 2, is at all times below the surface of the barrel. Consequently the band does not come into contact with said lower wall, but acts solely to raise the button and thereby to force the presser-bar firmly against the inner wall of the barrel as shown in Fig. 2. The operative portion of the band is thus wedged between the upper wall of the slot 11 and the barrel of the pen and is itself the more firmly held from slipping out of the slot. At the same time the spring tongues 23 grip the barrel firmly and aid in holding the band securely in place. The presser-bar is thus held from any possible vibration, while at the same time a simple angular movement of the band will unlock the bar and permit it to be depressed.

Having thus described my invention, what I claim and desire to secure by Letters Patent of the United States is:

1. A fountain-pen comprising a cylindrical barrel provided with an aperture in the side thereof, a friction band concentric with said barrel, movable about the axis of said barrel and having an aperture elongated in the direction of said movement, a collapsible ink-container in said barrel, a presser-bar located between the outer wall of said container and the inner wall of said barrel, and an imperforate press button extending through said apertures, said button having a slot in one side extending part way through it to receive the edge of the aperture in said friction band.

2. A fountain-pen comprising a cylindrical barrel provided with an aperture in the side thereof, a friction band concentric with said barrel, movable about the axis of said barrel and having an aperture elongated in the direction of said movement, a collapsible ink-container in said barrel, a presser-bar located between the outer wall of said container and the inner wall of said barrel, and an imperforate press button extending through said apertures, said button having a slot on one side extending part way through it, the width of the slot being greater than the thickness of said friction band and one wall of said slot being arranged to lie at all times appreciably below the circumference of said barrel.

3. A fountain-pen comprising a cylindrical barrel provided with an aperture in the side thereof, a friction band concentric with said barrel, movable about the axis of said barrel and having an aperture elongated in the direction of said movement, a collapsible ink-container in said barrel, a presser-bar located between the outer wall of said container and the inner wall of said barrel and a press-button extending through said apertures, said button having a slot which is non-concentric with said barrel and extends approximately obliquely to the axis of said button.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GEORGE FRANKLIN BRANDT.

Witnesses:
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H. W. KENWAY.