June 2, 1925. 1,540,416

R. NAMIKI

FOUNTAIN PEN

Filed July 23, 1924

Fig. 1.

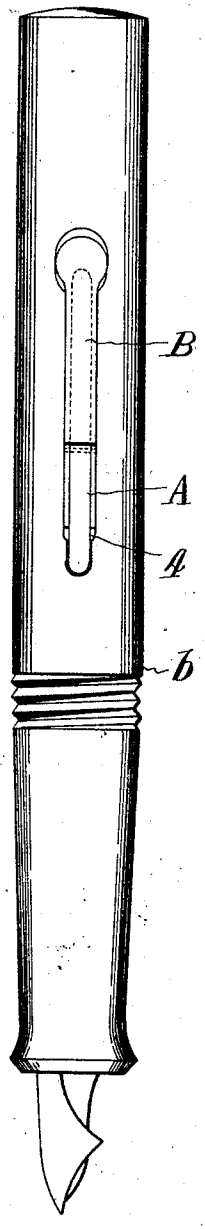

Fig. 2.

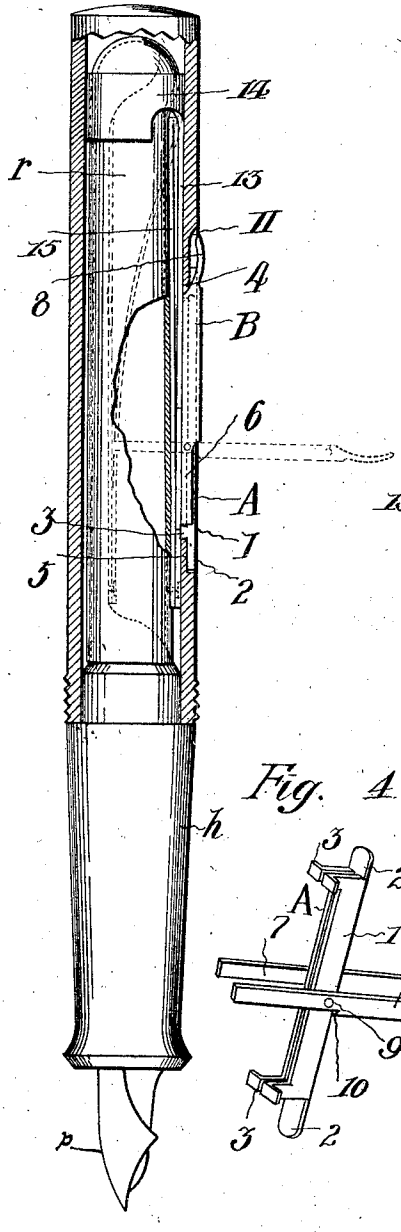

Fig. 3.

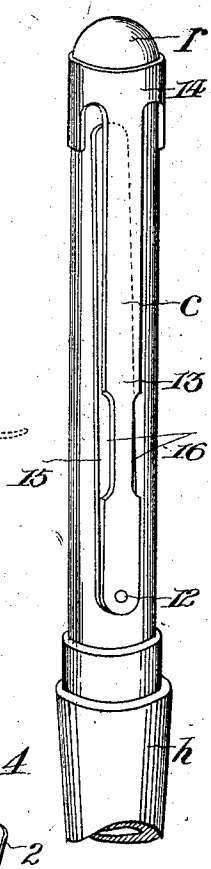

Fig. 4

INVENTOR.

Ryoukichi Namiki

BY B. Singer

ATTORNEY.

Patented June 2, 1925. 1,540,416

UNITED STATES PATENT OFFICE.

RYOSUKE NAMIKI, OF TOKYO, JAPAN.

FOUNTAIN PEN.

Application filed July 23, 1924. Serial No. 727,733.

To all whom it may concern:

Be it known that I, RYOSUKE NAMIKI, a subject to the Emperor of Japan, and a resident of No. 1693 Miyashita, Sugamo-machi, Kitatoyoshima-gun, Tokyo Prefecture, the Empire of Japan, have invented a new and useful Improvement in Fountain Pens, for which the following is a full, clear, and exact specification.

My invention relates to an improvement in fountain pens wherein the ink is reserved in a cylindrical casing of rubber or the like entirely enclosed in the outer casing or barrel, and more particularly to a means for the fountain pen of the class specified whereby the rubber casing is pressed at will to feed the writing pen with its content.

The object of my invention is to obtain the means which is simple in construction, easy in assembling and reliable in operation.

My invention essentially consists of a fixed member of oblong metal plate folded back along the longitudinal axis having two tongues at both ends respectively, and a pivoted metal member, on said fixed one, of U shaped section having a forked end and flattened at the other end.

Referring now to the accompanying drawings wherein,

Fig. 1 is a view in elevation of a fountain pen embodying my invention showing my means frontally.

Fig. 2 shows a side elevation of my means, the barrel being partly sectioned.

Fig. 3 is a perspective view of the resilient member cooperating with my mechanism to press the rubber casing.

Fig. 4 is a similar view of my mechanism in details.

A fountain pen embodying my invention consists of an outer casing or barrel *b*, an inner rubber casing *r*, a resilient means *c* to press and release the rubber casing for ink feeding, a pen holder *h* attached to the rubber casing at its open end and a pen *p*, as usual. The barrel *b* has a longitudinal opening 4 to receive my mechanism and through which my mechanism is operated. Inside the barrel along its length is frictionally mounted the resilient oblong member *c* consisting of two parts 13 and 15. The part 13 is made of resilient thin metal having an enlarged upper end 14 of cut circular form to receive the rubber casing end and in turn hold itself in position within the barrel. It is reduced of its width along the portion 16 corresponding to the opening 4. The other part 15 of the member *c* is also of resilient thin metal and is attached at one end 12 to the end opposite to the enlarged portion 14 of the part 13. The member *c* is so arranged in the barrel that the portion 16 may face to the longitudinal opening 4.

The longitudinal opening 4 has a suitable form to receive the fixed member of my means and to let the pivoted member operate therethrough as hereinafter described.

A fixed member A is an oblong metal plate folded longitudinally to provide side folds 1 and provided at the ends with tongues 2. The folds 1 are provided at their ends with outwardly projecting holding feet 3. In practice the said member A may be readily made by a suitable machine.

The other member B of my means is also made in one piece and has a U shaped section for the larger portion 6. Towards one end of the member, the bottom of the U shape is cut away to form a forked end 7. At the other end thereof, the member is flattened as shown by 8 in Fig. 4 to provide a picker. Two legs of the forked end 7 bestride the first member A and is pivoted thereto at 9, the bottom edge 10 of the U shaped portion acting as a shoulder to retain the member *c* within a quarter circular rotation.

The length of the opening 4 is made equal to that of the folded part 1 of the member A, while the width is enough to put in the part 6 or 7 of the member B. Through this opening is inserted the members A and B collectively, the holding feet 3 inwardly and the picker 8 upwardly of the barrel *b*. The member A is then fixed in position by bending feet 3 oppositely by the inner wall of the barrel as shown in Fig. 4. Directly adjacent to the lower end of the opening 4, the barrel has a recess 5 to receive one tongue 2, while to the upper end thereof the barrel also has a recess 11 of suitable form to receive the other tongue 2 as well as the picker 8. Thus the mechanism A and B does not project from the barrel surface in the normal or dead position as shown by the full line in Fig. 2, the broken line therein showing an acting position of the member D.

In the operation of my fountain pen, we pick up the picker 8 and rise up the member B about the pivot 7 as shown by the broken line in Fig. 2. The forked end 7

then turns into the barrel across the reduced portion 16 of the part 13 and inwardly push the part 15 to press the rubber casing r containing ink, thus forcing the same to feed the writing pen p with its content. After the feeding becomes sufficient, one turns back the member B to its normal position, the result being the self recovering of the resilient means c to their normal or dead position.

Having now particularly described and ascertained the nature of my invention and in what manner the same is to be performed, I declare that what I claim is:—

1. In a fountain pen, the combination with a barrel, an inner flexible ink reservoir of flexible material, a resilient means to press and release the flexible reservoir, a pen holder and a pen, of a means, to actuate said resilient means, consisting of a fixed member of one piece of oblong metal plate folded back along the centre line, having two tongues one at each end and holding feet to fix itself in position to said barrel, and a movable metal member of one piece, U shaped in section, having a forked end to bestride and to be pivoted to said fixed member and flattened at the other end to form a picker, said barrel being provided with a longitudinal opening to receive said actuating means and through which said actuating means are operated to actuate said resilient means.

2. In a fountain pen, the combination with a barrel, an inner flexible ink reservoir of flexible material, a resilient means to press and release the flexible reservoir, a pen holder and a pen, of a means, to actuate said resilient means, consisting of a fixed member of one piece of oblong metal plate folded back along the centre line, having two tongues one at each end and holding feet to fix itself in position to said barrel, and a movable metal member of one piece, U shaped in section, having a forked end, formed by cutting away a part of the bottom of said U shape towards the end thereof, to bestride and to be pivoted to said fixed member and flattened at the other end to form a picker, the bottom edge of the U shaped portion adapted to form a shoulder to retain the movable member within a quarter circular rotation, said barrel being provided with a longitudinal opening to receive said actuating means and through which said actuating means are operated to actuate said resilient means.

3. In a fountain pen, the combination with a barrel, an inner flexible ink reservoir of flexible material, a resilient means to press and release the flexible reservoir, a pen holder and a pen, of a means, to actuate said resilient means, consisting of a fixed member of one piece of oblong metal plate folded back along the centre line, having two tongues one at each end and holding feet to fix itself in position to said barrel, and a movable metal member of one piece, U shaped in section, having a forked end to bestride and to be pivoted to said fixed member and flattened at the other end to form a picker, said barrel being provided with a longitudinal opening to receive said actuating means and through which said actuating means are operated to actuate said resilient means, and having recesses directly adjacent to both ends of said longitudinal opening to receive said tongues and said picker in order that they may not project from the barrel surface when in normal position.

In witness whereof I affix my signature.

RYOSUKE NAMIKI.