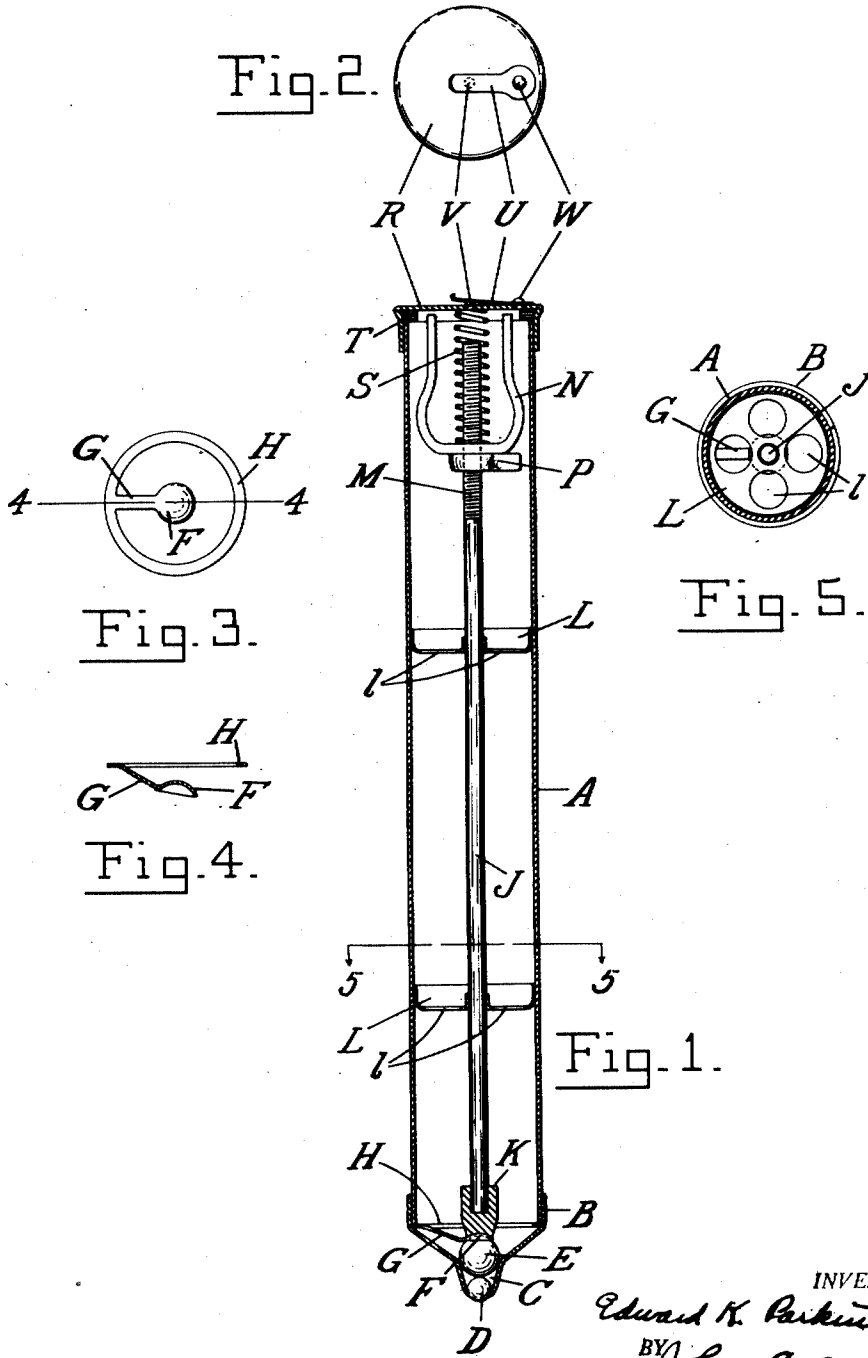


E. K. PARKINSON.
MARKING AND WRITING DEVICE.
APPLICATION FILED JUNE 7, 1920.

1,373,146.

Patented Mar. 29, 1921.



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To all whom it may concern:

Be it known that I, EDWARD K. PARKINSON, a citizen of the United States of America, residing at Albany, in the county of Albany and State of New York, have invented certain new and useful Improvements in Marking and Writing Devices, of which the following is a specification.

My invention relates to marking and writing devices. The object of my invention is to construct an improved device of this nature, the construction, arrangement and combination of parts of which are such that it will mark freely and without blotting on any surface which is adapted to receive the writing fluid with which it may be charged; which will work over comparatively rough surfaces without catching and which when in normal condition, will not leak in any position except when pressure is applied to the marking point, together with such other elements and combinations as are hereinafter set forth and subsequently claimed.

My improved fountain marking and writing device is illustrated in the accompanying drawings in which:

Figure 1 is a longitudinal sectional elevation.

Fig. 2 is a plan view.

Fig. 3 is a plan of the resilient "ball retainer."

Fig. 4 is a section along the line 4—4 on Fig. 3.

Fig. 5 is a cross-section plan along the line 5—5 on Fig. 1.

The same reference characters refer to the same parts throughout the several views.

Referring to the drawings, A is a tube forming the body of the device and serves as a reservoir for the writing fluid. B, is a cap secured on the lower end of the tube A, in any suitable manner, preferably by means of co-acting screw threads.

Formed in the cap B, is a tapered annular opening C, adapted to receive the ball D, which is the marking point of the device. The relative size of the ball D, and the annular opening G, being such that when the ball D, is in place, a portion thereof will project beyond the contour of the cap B, so as to be in position to act as the marking point of the device.

In the opening C, is also the ball E, adapted to seat therein and act as a valve to close the passageway. The ball E when seated just clears the ball D.

A ball retainer of resilient material, consisting of a ring H, an arm G, and a cup shaped, ball-engaging member F, is clamped in position in the cap B, by the end of the tube A, which comes into contact with the ring H, of the retainer member. The ball retainer is illustrated in detail by Figs. 3 and 4, and is also shown in Fig. 1.

Central in the tube A, is a stem J, having a contact piece K, attached to the lower end thereof and adapted to contact with the cup shaped member F, of the ball retainer member. The upper end of the stem J, is threaded, as are the holes through the stop member N, and the lock-nut P, which is adjustable thereon. The stop member N, is in effect a continuation of the stem J, its particular function being to limit the upward travel of said stem. By shaping this stop member as shown, it is impossible for it to contact with and close the vent V, in the cap R.

The cap R, is secured to the top of the tube A, preferably by means of coöperating screw threads, and a suitable washer T, is interposed between the cap R, and the end of the tube A, for the purpose of sealing the joint.

Mounted on the stem J, are suitable spacing disks L, which are provided with holes I, and are of proper diameter to fit slidably in the tube and hold the stem centrally therein.

A coil spring S, surrounds the upper portion of the stem J, and is of sufficient length so that while resting upon the stop member N, it will be compressed when the cap member R, is screwed to a seat.

A small vent hole V, is provided in the cap and a cover U, of resilient material, pivoted at W, provides means whereby the vent may be closed or opened at will. A vent hole which may be opened or closed at will, is necessary to the successful operation of a device of this kind.

The ball retaining member is a very necessary and important part of my improved device, its particular function being to prevent the balls, E, and D, from being lifted from their seats by the flow of ink when the device is being filled. The cap R, is removed for this operation which releases the tension from the spring S, and unless some auxiliary means are provided to hold the balls down, the flow of ink will force them out of location and permit the ink to flow

through the opening C, and out of the device.

The operation of my device is as follows: The device is filled with ink and the cap 5 screwed to a seat, which will compress the spring S, which will force downward the stem J, causing the contact member K, on the end thereof, being in contact with the cap shaped member F, of the resilient ball 10 retainer, to force downward the member F, and the ball valve E and cause the valve E to seat in the tapered annular opening C, securely closing the outlet at the bottom of the device. The vent opening V, then being 15 closed the device will not leak when in any position unless pressure is applied to the marking point, *i e.*, the ball D.

When light or highly fluid inks are used the device will mark satisfactorily without 20 opening the vent; but when heavy writing fluid is used, it is necessary to open the vent to secure a free flow.

Having thus described my invention, what is claimed is;—

25 1. In a fountain marking and writing device, a tubular body; a cap on the lower end thereof; a tapered annular opening through said cap; a ball, adapted to be the marking point of the device, in said opening 30 and a portion thereof projecting beyond the contour of said cap; a second ball in said opening adapted to seat in the upper end thereof, a resilient ball-retaining member mounted in said cap, the contact member 35 of said ball-retaining member in contact with said second ball; a stem with spacing disks thereon and a contact member adapted to contact with the ball engaging member of said ball retainer; a cap on the upper end 40 of said tube; and a spring on the upper end of said stem adapted to be compressed by said cap and to resist the upward movement of said stem.

45 2. In a fountain marking and writing device, a tubular body; a cap on the lower end thereof; a tapered annular opening through said cap; a ball, adapted to be the marking

point of the device, in said opening and a portion thereof projecting beyond the con- 50 tour of said cap; a second ball in said opening adapted to seat in the upper end thereof; a resilient ball retaining member in said cap held in position by the end of said tube, said retaining member comprising a ring 55 member with a resilient arm having a cup shaped ball engaging member thereon, said ball engaging member adapted to contact with, and exert a downward pressure on, said second ball; a slidable stem central in 60 said tube, the lower end of said tube in contact with said ball engaging member; a cap on the upper end of said tube; a spring adapted to be compressed between said stem and said cap; and an adjustable travel, limiting stop on said stem. 65

3. In a fountain marking and writing device a tubular body; a cap on the lower end thereof; a tapered annular opening through said cap; a ball, adapted to be the marking point of the device, in said opening and a 70 portion thereof projecting beyond the contour of said cap; a second ball in said opening adapted to seat in the upper end thereof; a resilient ball retaining member in said cap, held in position by the end of said tube, 75 said retaining member comprising a ring member with a resilient arm having a cup shaped ball engaging member thereon, said ball engaging member adapted to contact with, and exert a downward pressure on, 80 said second ball; a slidable stem central in said tube, the lower end of said tube in contact with said ball engaging member; a cap in the upper end of said tube; an adjustable travel limiting stop on said stem; means for 85 locking said stop in its adjusted position; a coil spring resting on said stop and adapted to be compressed by said upper cap; a vent hole in said cap; and means for closing said vent. 90

All substantially as shown and described.

In testimony whereof I have affixed my signature.

EDWARD K. PARKINSON.