March 21, 1933. R. BACK ET AL 1,902,208

DESK PEN HOLDER

Filed Aug. 14, 1926

Fig. 1.

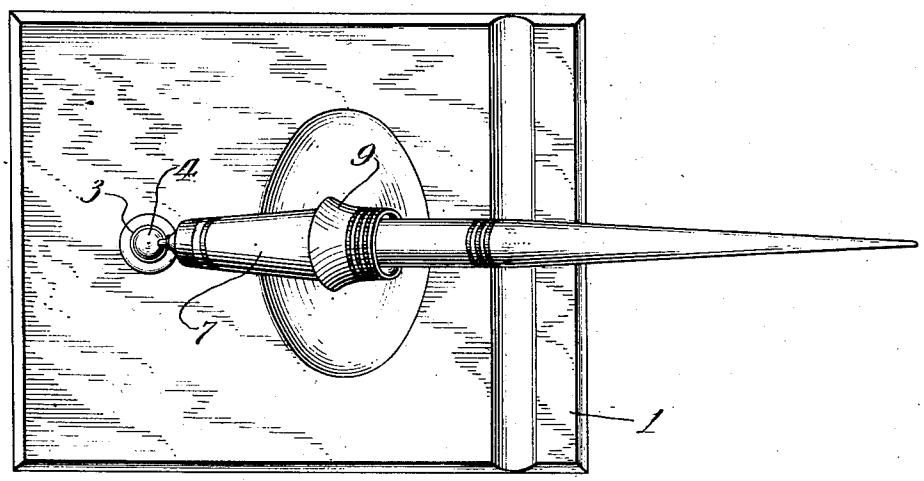


Fig. 3.

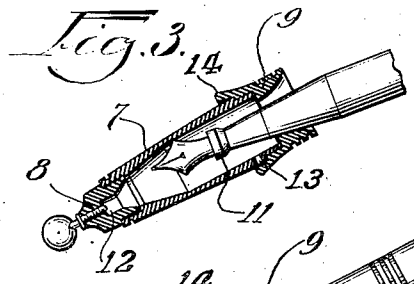


Fig. 2.

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UNITED STATES PATENT OFFICE

ROBERT BACK AND GLENN A. COOPER, OF CHICAGO, ILLINOIS, ASSIGNORS, BY MESNE ASSIGNMENTS, TO PEN DESK SET COMPANY, A CORPORATION OF ILLINOIS

DESK PEN HOLDER

Application filed August 14, 1926. Serial No. 129,126.

An object of this invention is to provide a pen holder which will substantially seal the nib from the surrounding atmosphere to prevent evaporation of the ink.

Another object of the invention is to provide a pen holder of the type suitable and convenient for use at a desk and which will prevent leakage of the pen and the smearing of ink upon the portion of the pen which is gripped by the fingers of the writer.

A further object is the provision of a novel construction of receiving receptacle or pen holder for readily receiving and retaining a fountain pen in a position instantly available for use.

Further objects, advantages and capabilities will later appear and are inherently posessed by the invention.

Our invention further resides in the combination, construction and arrangement of parts illustrated in the accompanying drawing, and, while we have shown therein a preferred embodiment, we wish it understood that the same is susceptible of modification and change without departing from the spirit of our invention.

Referring now to the drawing which illustrates this invention, Fig. 1 is a plan view of a desk pen holder with a suitable pen inserted therein.

Fig. 2 is a vertical central sectional view of the base and pen holder showing a pen inserted in the holder.

Fig. 3 is a detailed view in section of the pen holder illustrating the manner of inserting the pen.

Referring now in greater details to the drawing, a base which is generally indicated by the numeral 1 is provided with an aperture 2 in which is mounted a sleeve 3. The upper open end of the sleeve is turned inwardly slightly in order to retain the ball 4 against further upward movement. A spring 5 or other suitable means may be employed for thrusting the ball upwardly toward the top of the sleeve 3 and holding it by pressure against the aforesaid inturned edge, in order that the ball may be releasably held in any position to which it may be turned. If desired a bearing plate 6 may be used for thrusting against the ball on the one side and for bearing against a spiral spring 5 on its lower side. The sleeve or socket member 3 may be secured in the aperture 2 of the base 1 by means of an anchor plate 15 positioned at the lower end of the opening or aperture 2 and a bolt or other tightening means 16 mounted in the plate 15 and adapted to threadedly engage the sleeve or socket 3. This attaching means firmly holds the socket 3 in the base member without disturbing the frictional contact between the ball and the socket.

A receptacle generally indicated as 7 is then affixed to the ball in a suitable manner as by the screw 8. It will be observed that the lower end of this receptacle is sealed. At the open end of the receptacle is provided a shoulder 9 which is adapted to grip the outer surface of a pen, as indicated in Fig. 2. The shoulder 9, the interior of the receptacle, and the pen are so designed that the shoulder 11 on a pen section, referred to in the claims as the pen section shoulder, cannot touch the inner walls of the receptacle. It will be observed that when the pen is placed firmly in the receptacle it substantially seals the receptacle so that the air in the surrounding atmosphere cannot circulate freely into contact with the pen point and cause evaporation of the ink. In like manner dust is excluded from the receptacle. The general configuration of the interior of the receptacle approximates a taper with a small cylindrical portion 12 at the lower end. The purpose of the taper is to afford easy entrance of the nib into the cylindrical portion 12. The cylindrical portion is of such diameter that it will laterally support the nib, restricting its lateral movement and thus holding the longitudinal axis of the pen in alignment with the longitudinal axis of the receptacle. An advantage arising from this alignment of axes is found in the symmetrical appearance of the pen and pen holder. A further advantage is that the pen section shoulder cannot touch the interior walls of the receptacle and become smeared with any ink which may be found on those walls.

The vent 13 opens from the interior of the

receptacle to the exterior at a point under the outwardly flaring skirt 14 of the shoulder piece 9, thus providing a limited communication with the outside atmosphere. It has been found by experiment that such a vent is vital to the successful operation of the device. If desired, the vent 13 may be located at some other point or a plurality of vents may be provided. When the vent is omitted and the nib and feed are hermetically sealed from the outer atmosphere, the small portion of air occluded within the cap becomes completely saturated with water vapor from the ink. Atmospheric temperature changes will then cause condensation of this water vapor on the nib and lower end of the pen section, a disagreeable and messy condition thus confronting the user of the pen. If, on the other hand, the nib and feed are openly exposed to the atmosphere in non-use, they will dry out to an extent that prevents ready flow of ink when one wishes to start writing. The vent hole, therefore, has been added to produce a desirable condition lying between the two extremes. The size of the hole has been determined by experiment so that enough moist air may be confined within the cap to prevent the drying of the nib and feed, and sufficient ventilation is supplied to prevent condensation, or what is commonly termed "sweating".

The pressure of the spring against the ball and the arrangement of the ball in the sleeve 3 is such that the receptacle may be rotated into any desired position, where it then will remain. As a consequence, the user of this desk set may place the pen in any convenient inclined position, out of the way, yet covenient to his reach. If desired, this invention may be so modified as to permit the pen holding receptacle to be more nearly lowered to a horizontal position. However, if desired, the invention may be modified to permit of the receptacle being rotated downwardly to a horizontal position. The receptacle, as illustrated, may be rotated about a vertical or horizontal axis, or a plurality of other axes.

Having shown and described our invention, we claim:—

1. In a fountain pen desk set, a base, an open-mouthed tubular pen holder mounted at its lower end on said base, an inwardly extending annular shoulder in said holder adjacent the mouth of the same, the inner walls of the holder and said annular shoulder being so related as to maintain the pen section shoulder of a fountain pen out of contact with said inner walls as the pen is inserted in the holder, said annular shoulder acting as a seal for the holder when the pen is positioned therein, the holder being provided with a small aperture for regulating the humidity of the air within the holder.

2. In a fountain pen desk set, a base, an open-mouthed receptacle mounted on said base, said receptacle having an inwardly extending annular shoulder near its open mouth, an aperture in the receptacle wall adjacent said shoulder, and a flaring skirt overlapping but slightly spaced from said aperture.

In witness whereof, we hereunto subscribe our names to this specification.

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