No. 635,309. Patented Oct. 24, 1899.

A. B. FLAGG.

ATTACHMENT FOR INKSTANDS.

(Application filed July 11, 1898.)

(No. Model.)

Fig. 1.

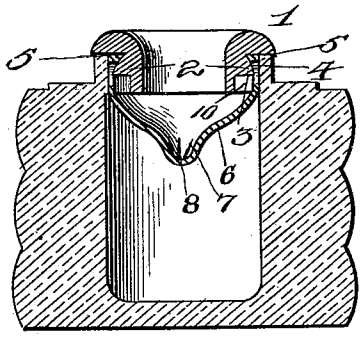


Fig. 2.

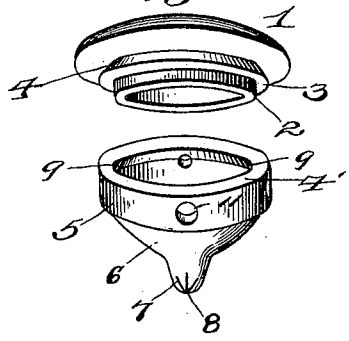
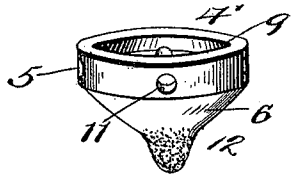


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

ALBERT B. FLAGG, OF HILLSDALE, MICHIGAN.

ATTACHMENT FOR INKSTANDS.

SPECIFICATION forming part of Letters Patent No. 635,309, dated October 24, 1899.

Application filed July 11, 1898. Serial No. 685,586. (No model.)

To all whom it may concern:

Be it known that I, ALBERT B. FLAGG, a citizen of the United States, residing at Hillsdale, in the county of Hillsdale and State of Michigan, have invented certain new and useful Improvements in Attachments for Inkstands; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to an attachment for inkstands and the like of the class employing an elastic tube or nipple extending down within the inkstand and provided at its lower end with a self-closing valve to protect the ink from unnecessary exposure to the air.

The invention consists in an attachment comprising a cap and nipple of novel construction, as hereinafter fully described, and particularly pointed out in the appended claims, whereby the attachment serves as a perfect closure or stopper for the inkstand or bottle, thus avoiding the necessity of employing a cork or other supplemental stoppers during transportation.

In the accompanying drawings, Figure 1 is a central vertical section of the improved attachment applied to an inkstand. Fig. 2 is a perspective view illustrating the cap and nipple separated, and Fig. 3 is an enlarged detail perspective showing the lower slitted end or tip of the nipple provided with a sealing and protecting coating.

The reference-numeral 1 designates a ring constituting the securing-cap of the device and having its inner edge deflected to form an annular flange or collar 2. Upon this collar 2 is formed an annular flange 3, the edge 4 of which is inwardly beveled, as shown in Figs. 2 and 3.

The elastic nipple comprises a body portion 4′, an upwardly-extending rim 5, and a depending tip 6, the latter being formed with a series of radial slits 7 to divide the tip into a plurality of resilient self-closing flaps 8, which conveniently form a valve which closes automatically. The upper edge of the rim 5 is slightly beveled on its inner surface to form an inwardly-projecting flange 9, which is adapted to engage and closely hug the beveled edge 4 of the flange 3. This connection of the nipple and ring leaves an annular air-space 10 between the rim and the collar 2 of the cap.

The rim 5 is formed with one or more openings 11, through which air escapes from within the inkstand. This provision for the escape of air constitutes an important feature of the invention, as will be now explained.

When the nipple and cap are connected in the manner shown in Fig. 2, the device is inserted into the mouth of the inkstand. As it is gradually forced to position the air contained in the inkstand enters the opening or openings 11 and passes to the air-space 10, from whence it escapes below the collar 2 to the outer air through the central opening in the ring 1. This escape of the air within the inkstand greatly facilities the insertion of the attachment, preventing or overcoming as it does the tendency of the ink to splash or be suddenly forced upwardly by the downward pressure of air.

It will be readily perceived that the act of inserting the nipple and cap into the mouth of the inkstand will cause a compression of the air within the inkstand, which compression serves to compress the nipple or tube, thereby opening the lower portion of the air-openings and permitting the escape of the air. As soon as the compressed air has been relieved that portion of the nipple or tube where the air-openings are located to a point below said openings falls back automatically against the interior walls of the inkstand, closing the receptacle air-tight.

Referring now to Fig. 3, 12 denotes a coating or covering of paraffin, which is applied to the tip or slitted lower end of the nipple. This coating serves two distinct purposes, viz: It forms an effective seal for the flaps 8, thus hermetically closing the lower end of the nipple, and, secondly, it serves to protect said flaps after they are separated by the insertion of a pen or other article to break the seal and causes them to retain their resiliency. By thus sealing the lower end of the nipple the attachment serves the purpose of the ordinary cork or other stopper, and it not only protects the ink from the air, but provides an

effective sealed stopper during transportation. By the insertion of a pen, pencil, or the like the paraffin seal is broken, but the coating-flaps 8 are still protected by the paraffin, which I have found by practical tests greatly adds to the effective operation of the valve by protecting the flaps from direct contact with the ink and which sooner or later tends to harden the unprotected surfaces of the rubber, preventing their retracting properly.

It will be apparent that the attachment as a whole may be readily applied to or removed from the inkstand, and hence that the latter may be refilled whenever necessary.

I claim—

1. A removable stopper attachment for inkstands, comprising a ring or cap, and an elastic tube or nipple provided with one or more air-openings near its upper end and slitted at its lower end to form an automatic valve.

2. A removable stopper attachment for inkstands, comprising a ring or cap provided with a dependent annular flange beveled on its outer surface, and having an annular collar extending below said flange, in combination with an elastic tube engaging said flange, and provided with one or more air-openings, said tube and collar constituting an annular air-space with which the air-openings in the tube communicate, and from which air escapes below the beveled flange.

3. A removable stopper attachment for inkstands, comprising a ring or cap having a depending inner edge or flange beveled on its outer surface for the attachment of an elastic tube or nipple, and provided with a collar depending below the beveled flange, in combination with an elastic tube slitted at its lower end to form an automatic valve, and having an air opening or openings near its upper edge communicating with the annular space formed by the collar and elastic tube, and serving to permit the escape of air from the inkstand below the beveled flange of the ring or cap.

In testimony whereof I affix my signature in presence of two witnesses.

ALBERT B. FLAGG.

Witnesses:
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