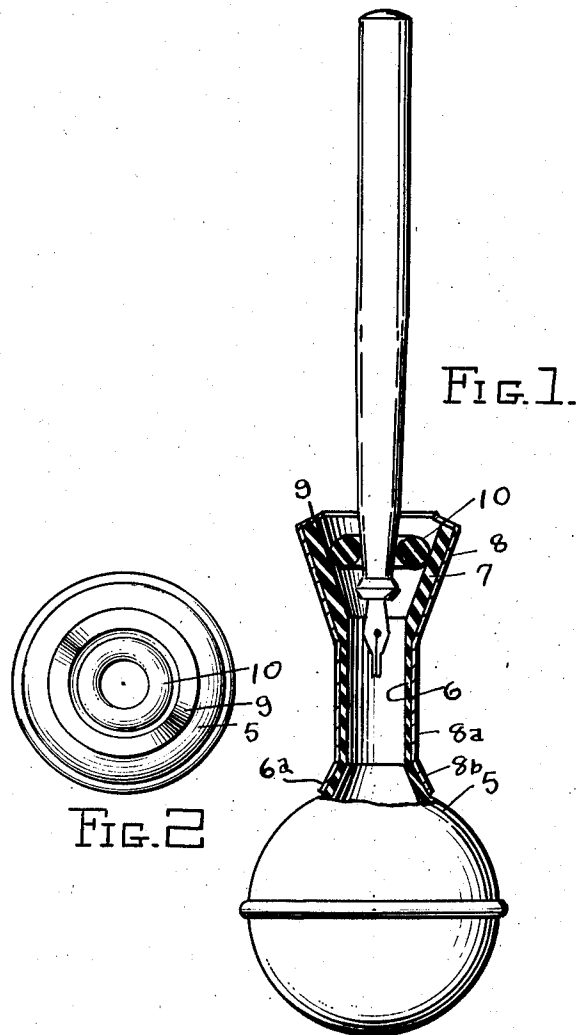


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FOUNTAIN PEN CLEANER
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UNITED STATES PATENT OFFICE

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FOUNTAIN PEN CLEANER

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2 Claims. (Cl. 120—108)

This invention relates to a hand device for cleaning fountain pens by producing alternate suction within the pen, to cause its contents to discharge, and then water pressure to flush the interior of the pen and the feed passages, so that all accumulated matter will be washed away and removed from the pen, thereby producing clean feeding surfaces and restoring the pen to approximately its original working condition.

One of the objects of the invention is the provision of a device of this kind with a conical pen receiving member, having a lining of yielding rubber and a metal jacket, designed to prevent expansion of the member, in which the forward end of the pen may be inserted so that a sealing fit is easily obtained by slight pressure therewith.

Another object of the invention is the provision of a device of this character with a chamber located below the conical sealing chamber, which will prevent injury to the nib of the pen.

A still further object of the invention is the provision of a device of this character with a yielding rubber ring, adapted to slide and contract in the conical sealing member, when a small pen is forced against the same, so that a smaller pen may be inserted and sealed against the member, and the required suction and pressure operations then made.

With the above and other objects in view the invention consists in certain new and useful constructions, combinations, and arrangements of parts, clearly described in the following specification, and fully illustrated in the accompanying drawing, in which:—

Fig. 1 is a side elevation, partly in longitudinal section, showing a pen inserted in sealing relation with the conical member of the cleaning device.

Fig. 2 is a top plan view of Fig. 1, with the pen removed.

Referring to the drawing illustrating the practical construction of my invention 5 designates a combined pressure and suction producing rubber bulb, which is shown to be of approximately spherical shape, but which may be of any other shape.

This bulb is formed with or provided with a cylindrical discharge tube 6, which terminates in a conical pen receiving mouth or member 7, which flares outwardly, and which may be provided with a thicker wall than the tube 6.

The conical pen receiver 7 is enclosed by a metal cone 8, which is designed to prevent expansion of the rubber cone 7. The upper end of metal cone may be formed with a flange 9, which overlaps and projects inwardly of the upper end of the rubber cone 8.

When small fountain pens are to be cleaned,

or such fountain pens, in which the handle is provided with a tapered or ball-shaped end, then a yielding rubber ring 10 is inserted in the rubber conical pen receiver, and the forward end of the fountain pen is forced through this ring, which is then forced into the rubber cone. This will cause the rubber ring to roll around the pen end, by reason of the effect of the cone upon it, thus increasing the pressure contact between the rubber ring and the forward end of the pen, and also between the ring and the rubber cone.

When the fountain pen is withdrawn the rubber ring will expand as the pen is pulled outwardly, and the expansion of the rubber ring will cause it to engage the flange 9 of the reinforcing metal cone.

If a larger fountain pen, or a fountain pen with a thick nib-holding end is to be cleaned, then it is only necessary, to take the yielding rubber ring 10 out of the conical mouthpiece of the device, then this thick end of the penholder, if pressed into the mouthpiece, until it bears against the inner wall, will effect a tightening contact with the inner surface of the rubber cone 7, so as to allow a cleaning of the fountain pen in the manner described above.

By frequent cleaning of the working parts of a fountain pen it may be kept in better writing condition, and repairs, which arise largely from crude efforts to force a pen to work, when all it needs is cleaning, may be avoided.

The metal sleeve protecting the rubber cone, may be extended over the rubber tube 6 and flared out further down at 6a, to enclose the neck of the rubber bulb, so that the tube and adjacent portions cannot be collapsed by hand pressure, to subject the feed and nib of the fountain pen to injury.

I claim as new:

1. A fountain pen cleaner consisting of a bulb, a flexible rubber tube connected therewith, a rubber cone connected with the bulb, the bulb being constructed of yielding rubber to permit of manual compression, and adapted to react to produce suction, a metal cone enclosing the rubber cone and having a flange engaging the upper end of the rubber cone, and a resilient rubber ring slidable against the rubber cone and adapted to be retained therein by the flange of the metal cone.
2. A fountain pen cleaning device, consisting of a rubber cone, a flexible tube connected therewith, a metal sleeve enclosing the rubber cone and having a flange on its outer end to engage the outer end of the rubber cone, a compressible rubber bulb connected with the tube, and a resilient rubber ring, slidable in the rubber cone.

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