

(No Model.)

T. SWEESY.
AUTOMATICALLY FEEDING INKSTAND.

No. 494,448.

Patented Mar. 28, 1893.

Fig. 1.

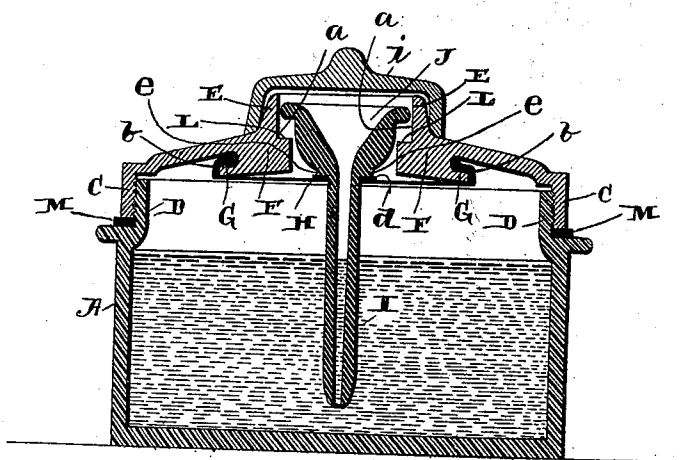
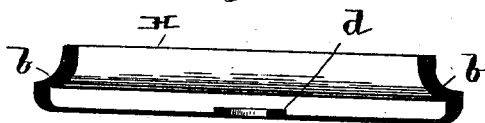


Fig. 2.



WITNESSES—

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UNITED STATES PATENT OFFICE

THADDEUS SWEESY, OF BRADFORD, PENNSYLVANIA.

AUTOMATICALLY-FEEDING INKSTAND.

SPECIFICATION forming part of Letters Patent No. 494,448, dated March 28, 1893.

Application filed November 16, 1892. Serial No. 452,175. (No model.)

To all whom it may concern:

Be it known that I, THADDEUS SWEESY, of Bradford, in the county of McKean and State of Pennsylvania, have invented certain new and useful Improvements in Automatically-Feeding Inkstands; and I do hereby 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to improvements in automatically feeding inkstands; and it consists in the particular construction and arrangement of the parts which will be fully described hereinafter and particularly pointed out in the claims.

The object of my invention is to provide the well with a cap or cover to be screwed thereon in a suitable manner to make it air tight and yet easily detachable, and to secure to the inner or under face of the cap a flexible diaphragm (preferably rubber) by providing the under face of said cap with a depending annular flange, which latter has a laterally extending annular flange, over which the thickened portion of the flexible diaphragm is stretched and held by its elasticity.

Another object of this invention is to provide the said cap or cover with a central opening through which the feeding tube passes having a stop or step, the said tube with a stop at its upper edge which when depressed engages the cover stop to limit its downward movement, and around this opening at the outer face of the cap an upwardly extending annular flange which extends to or slightly above the bowl of the funnel to protect it against being struck by a book or other object, and the ink thereby suddenly forced out of the well.

In the accompanying drawings Figure 1 represents a vertical sectional view of an ink well which embodies my invention complete, and Fig. 2. is a detail sectional view.

A represents a well preferably made of glass, and with an open upper end. This upper end of the well is preferably formed with an inset flange D, to form a horizontal shoulder for supporting a soft rubber washer or gasket M. The flange D has at its outer face

screw-threaded, and upon this screw threaded flange D, the depending internally screw threaded vertical flange C, of the cap or cover B fits, and is screwed down upon the washer M, in order to make an air tight fit. Made in the center of this cap is an opening *a*, through which the feeding tube I passes. Surrounding this opening at the under side of the cap is a depending annular flange F which is provided with a laterally extending annular flange G. The rubber diaphragm H, has its periphery thickened as shown at *b*, and this thickened portion surrounds the two flanges and fits in the space between the laterally extending flange G, and the under-side of the cap as clearly illustrated. The diameter of these flanges is slightly greater than the normal diameter of the thickened portion of the diaphragm, in order that the latter has to be stretched around the said flanges, and is held there, by its retractibility. This diaphragm has a central opening through which the tube I, and the diaphragm at this point is also thickened as shown at *d*, and is made of a size to fit the tube tightly to form an air tight joint therewith. Just below the bowl J of the tube, a flattened portion *e*, is formed which comes in contact with the diaphragm, and thus limits the downward movement of the tube in relation to the diaphragm. The portion F extends inward beyond the inner side of the opening *a*, in order to form a step or stop L, for the tube, which latter has the upper edge of its bowl portion J, provided with a lateral stop K, which engages the said stop L, when it is depressed, thus limiting the downward movement of the tube in relation to the cover, and the relation of the lower end of the tube to the bottom of the well when it has reached the limit of its downward movement. This also serves to prevent the tube from having too much downward movement, so that when the pen is placed in the bowl portion, and thoughtlessly or hurriedly pushed down, the ink will not be forced into the bowl portion so forcibly, or so much as to cause it to overflow. Surrounding this opening *a*, at the upper face of the cap is a vertical annular flange E, which is sufficiently high to extend to or slightly above the upper face of the bowl J, so that the tube will not be suddenly forced down by being struck by a book or other ob-

ject, which will cause the ink to spurt out over the desk, book or papers. Owing to this construction, the flange E will receive the blow, while the tube will remain undisturbed as will be readily understood.

From the above description it will be seen that I produce an ink well with a cap, and secure to the under side a flexible diaphragm, whereby when the cap or cover is removed the diaphragm is also removed and with it the tube, thus doing away with the necessity of removing the diaphragm, when it is desired to clean the well.

I am aware that it is not new broadly to secure the diaphragm to the underside of a cap or cover, but in this instance the cap has not been formed in the same manner as my cap, whereby the several results named are accomplished.

For the purpose of keeping dust out of the funnel, I provide a cap or cover *i*, which is placed over the funnel as clearly illustrated.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. An automatically feeding ink stand comprising a well, a cap having a depending flange C fitting the upper end of the well, the said

cap having a central opening, a depending annular flange surrounding said opening provided with a laterally extending flange G, combined with a diaphragm having an upwardly extending flange passing around the flange G, the diaphragm having a central opening, and a tube extending through the diaphragm and having a bowl at its upper end, substantially as described.

2. An ink well having a detachable cap provided with a depending flange C fitting the upper end of the well, a central opening, a depending flange surrounding the said opening, the said flange having an outwardly extending lateral annular flange, a flexible diaphragm surrounding the said lateral flange, the depending flange extending inward to form a stop within the said cap central opening, combined with a feeding tube which passes through the said diaphragm and provided with a laterally extending flange to engage the said stop, substantially as described.

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

THADDEUS SWEESY.

Witnesses:

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D. HEALEY.