

A. E. WILDE.  
SAFETY INK WELL.  
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1,059,801.

Patented Apr. 22, 1913.

Fig. 1.

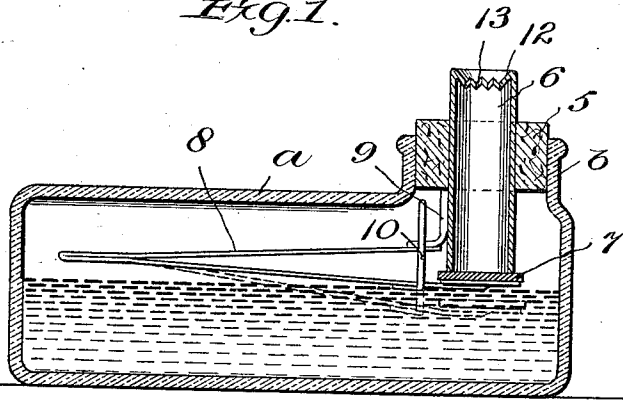
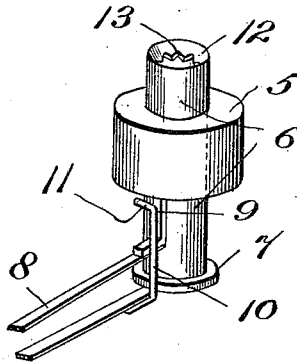


Fig. 2.



Witnesses:  
James Cronin  
W. E. Laughlin

Inventor  
Arthur E. Wilde  
By his Attorney  
Victor J. Evans

# UNITED STATES PATENT OFFICE.

ARTHUR E. WILDE, OF NEW YORK, N. Y., ASSIGNOR TO ARTHUR E. WILDE MANUFACTURING AND SALES COMPANY, INC., OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

## SAFETY INK-WELL.

1,059,801.

Specification of Letters Patent.

Patented Apr. 22, 1913.

Application filed August 6, 1912. Serial No. 713,607.

*To all whom it may concern:*

Be it known that I, ARTHUR E. WILDE, a citizen of the United States, residing at New York city, in the county of New York and State of New York, have invented new and useful Improvements in Safety Ink-Wells, of which the following is a specification.

The general object of the invention is to prevent the spilling of the contents of an ink bottle in the event of the upsetting of the said bottle while in use, and to admit of the insertion for a predetermined distance of the pen point into the ink when the pen, as a whole, is introduced into the mouth of the bottle. And to this end the invention consists in a valve wholly located within the ink bottle and adapted to automatically seal the passage through the neck of the bottle and to yield or open for a predetermined distance under ordinary pressure on the pen when the latter is inserted into the neck of the bottle.

Other objects will appear and be better understood from that embodiment of the invention of which the following is a specification, reference being had to the accompanying drawings forming part hereof and in which:—

Figure 1 is a vertical longitudinal section, showing an ink bottle and the device assembled therewith. Fig. 2 is a detail perspective of the device with the free end portion of the spring broken away.

The bottle *a* is of ordinary construction and has the usual neck *b* into which is inserted the ordinary cork or stopper, (not shown), which forms the closure when the bottle filled with ink is placed for sale on the market.

The device forming the subject matter of the present invention consists of a bushing 5 of cork, rubber or other suitable material and of such size as to snugly fit within the neck *b* when the original cork or closure is removed. Assembled with the bushing 5 is a tube 6 preferably of metal and of such diameter as to admit of its insertion through the hole in the bushing 5 which operates to hold the tube in position after the same is adjusted vertically. The tube is of such length as to admit of its lower end extending to a point in juxtaposition to the bottom of the bottle *a* when its upper end is substantially flush with the upper end of the bushing 5.

A valve 7 formed of any suitable material such as rubber, and by preference circular in contour and greater in diameter than the diameter of the tube 6, is arranged below and yieldingly held in contact with the lower end of the said tube by a hair pin shaped spring 8, the ends of which are connected to the valve and to a suitable bracket or lateral extension 9 carried by the tube 6. A stop 10 carried by one of the arms of the spring 8, has an angularly bent free end portion 11 which extends over and is normally spaced from the other arm of the said spring 8 so as to contact with the said other arm when the valve is opened for a predetermined distance and thus serves to limit the opening movement of the valve.

In use and with the original stopper removed from the neck *b* and with the bushing 5 removed to the upper end of the tube 6, the device is tilted so as to direct the spring 8 into the neck *b* and into the body of the bottle *a*. This done, the device is turned so that the tube 6 will occupy an upright position and the spring 8 extend horizontally or substantially so after which the bushing is forced into the neck *b* and the tube adjusted so as to have the valve 7 at the upper surface of the body of fluid. When it is desired to wet the pen with ink, the pen is directed downwardly through the tube 6 and until the point contacts with the valve 7. This done, the pressure is increased until the valve 7 moves away from the lower end of the tube, and continued until the bent portion 11 contacts with one arm of the spring. The valve will now be immersed in the ink and so too, will the lower portion of the pen point. Upon lifting the pen from the tube, the valve will follow under the action of the spring 8 and thereby seal the tube.

In order to prevent the running out of the tube in the event of the bottle being accidentally upset when not in use, of any ink which may be lifted into the tube by the valve during its closing movement, a downwardly inclined flange 12 is provided and arranged in the upper end portion of the tube. This will form an abutment for ink flowing on the side of the tube when the bottle is upset. A plurality of teeth 13 are associated with the edge of the flange 12 and are arranged so as to contact with the pen holder when inserted and taken from

the tube 6, whereby to prevent ink from the pen holder from contacting with the wall of the tube.

What I claim as new is:—

- 5 A safety device for ink bottles comprising a bushing adapted to fit in the neck of the ink bottle, a pen receiving tube adjustably fitted in the bushing, a valve, a hair pin shaped spring having one arm connected to  
10 the tube and its other arm connected to the valve and arranged for holding the valve normally in contact with the lower end of

the tube, a stop connected to one arm of the spring and adapted for limiting the outward movement of the arm connected to the valve, and a guard at the upper end of the tube. 15

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

ARTHUR E. WILDE.

Witnesses:

C. JAMES CRONIN,  
M. E. LAUGHLIN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."