W. H. LUCAS.

INKWELL.

APPLICATION FILED MAR. 29, 1920.

1,371,103. Patented Mar. 8, 1921.

Fig. 1.

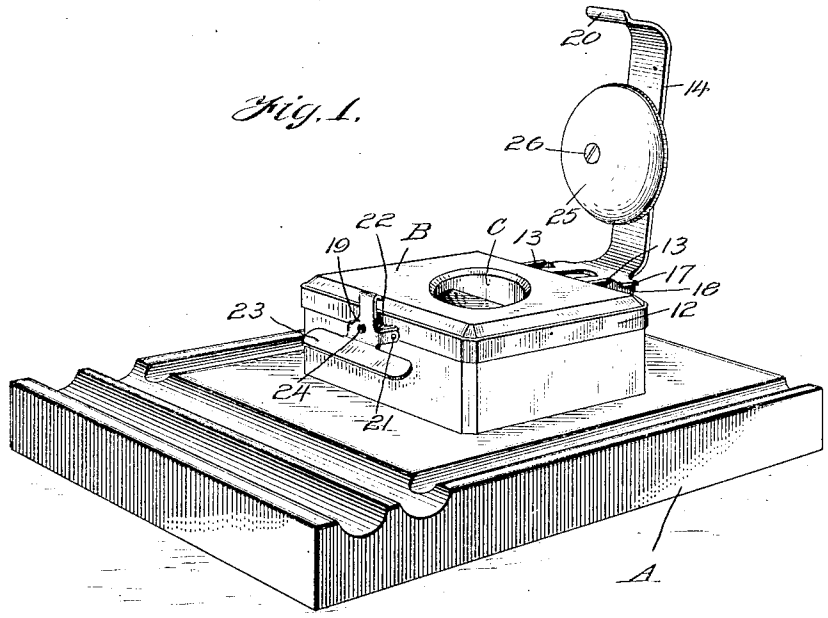


Fig. 2.

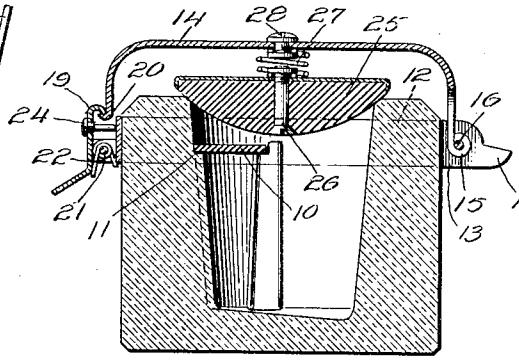


Fig. 3.

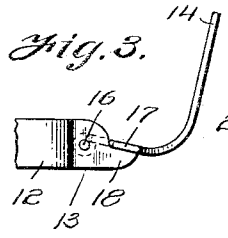


Fig. 4.

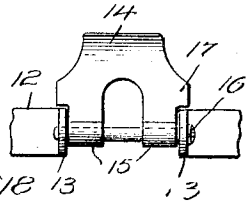


Fig. 6.

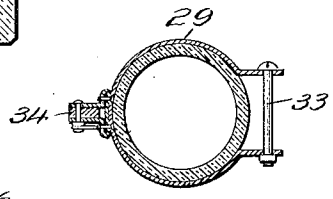
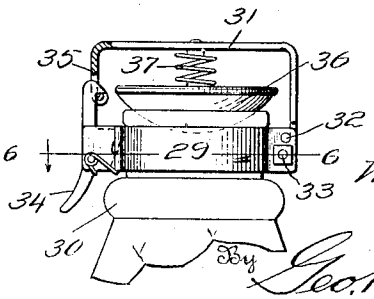


Fig. 5.



Inventor

W. H. Lucas.

By Geo. P. Kimmel.

Attorney

UNITED STATES PATENT OFFICE.

WILLIAM H. LUCAS, OF CLAREMORE, OKLAHOMA.

INKWELL.

1,371,103. Specification of Letters Patent. Patented Mar. 8, 1921.

Application filed March 29, 1920. Serial No. 369,827.

To all whom it may concern:

Be it known that I, WILLIAM H. LUCAS, a citizen of the United States, residing at Claremore, in the county of Rogers and State of Oklahoma, have invented certain new and useful Improvements in Inkwells, of which the following is a specification.

The invention relates to an ink container, such as an ink well or bottle, and more particularly to the class of closures for use on ink wells or bottles.

The primary object of the invention is the provision of a closure of this character, wherein the stopper member thereof is resiliently supported so that when the same is brought to closed position relative to the mouth of the ink well or bottle it will become self adjusted for the proper seating thereof in the mouth for tightly closing and sealing the same, the opening and closing support for the stopper member being of novel form, which when released from closed position will instantly be caused to swing the stopper member to open position by the resiliency of the stopper member for free access to the contents of the ink well or bottle.

Another object of the invention is the provision of a closure of this character, wherein the construction and arrangement thereof enables the same to be readily mounted upon an ink well or bottle, without necessitating any changes in the same, and when closed will positively and tightly seal the mouth of the ink well or bottle thereby preserving the contents of the same, the stopper member and the support therefor being of novel form, whereby on the closing of the stopper member the support can be latched, the connection between the stopper member and the support being resilient and when said support is latched the stopper member and said support will be held under tension by the resilient member to firmly seat the stopper member when in closed position and to effect the automatic opening of the stopper member when the said support is unlatched, thereby eliminating the necessity of the manual lifting of the support or stopper member when it is desired to open the ink well or bottle.

A further object of the invention is the provision of a closure of this character, wherein the stopper member is preferably made from rubber so that on the closing thereof the same will become firmly seated in the mouth of an ink weel or bottle to completely seal the same and at the same time affording maximum wearing qualities in the use of the closure.

A still further object of the invention is the provision of a closure of this character, wherein the same when in closing position is extremely sensitive to opening action so that the said closure may be easily operated either by the finger of the user of the ink well or bottle or through the instrumentality of a pen or like writing implement, the closure when in its closed position rendering the said ink well or bottle dust proof and air-tight, thereby avoiding any deterioration in the contents or the evaporation of the same.

A still further object of the invention is the provision of a closure of this character, which is extremely simple in construction, readily and easily applied to an ink well or bottle, yet it is to be understood that the said closure may be applied to other receptacles or containers, thoroughly reliable and efficient in its purpose, strong, durable, and inexpensive to manufacture and install.

With these and other objects in view, the invention consists in the features of construction, combination and arrangement of parts, as will be hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereunto appended.

In the accompanying drawings:

Figure 1 is a perspective of a conventional form of ink well stand and ink well, showing the closure constructed in accordance with the invention applied to the ink well and the stopper member in open position.

Fig. 2 is a vertical sectional elevation, showing the closure with the stopper member in closed position relative to the well.

Fig. 3 is a fragmentary side elevation of the mounting frame of the closure showing the stopper member or support raised and at the limit of its opening movement.

Fig. 4 is a fragmentary rear elevation of the supporting frame and the stopper member or support.

Fig. 5 is a fragmentary side elevation of an ink bottle showing applied thereto a modified form of closure.

Fig. 6 is a sectional view on the line 6—6

of Fig. 5 looking in the direction of the arrow.

Similar reference characters indicate corresponding parts throughout the several views in the drawing:

Referring to the drawings in detail, particularly Figs. 1 to 4 inclusive, A designates generally a conventional form of base or stand used in connection with an ink well B, which in this instance is of the glass type and of square shape having centrally therein the usual ink chamber C for accommodating a quantity of ink. Within the ink chamber C at a distance below the mouth thereof which opens through the top of the body of the well B is a pen wiping shelf 10, which is removably supported so that it may be cleaned when the occasion requires. The pen wiping shelf 10 is fitted in the chamber C in the well B in a supporting seat 11 formed in the wall of said chamber C, the said seat being constructed and arranged to prevent any possible displacement of the pen wiping shelf 10 when fitted within the ink chamber C, which latter is adapted to be filled with ink to a level below the plane of the shelf 10 and the ink can be dipped from the chamber C through the open mouth thereof in the usual manner.

Carried by the well B is the closure which comprises a split supporting band or yoke 12 preferably made from metal bent correspondingly to the shape of the body of the well B to embrace the same in a manner as shown in Fig. 1 of the drawing, the ends of said band or yoke 12 being bent outwardly in parallel relation to each other to form spaced pivot bearings or ears 13 which are preferably located at the rear of the well B for accommodating therebetween a swinging support in the form of an inverted substantially U-shaped bridge bar 14, the end thereof between the pivot bearings or ears 13 being formed with a pintle sleeve 15 for accommodating a pivot pin 16 which is passed therethrough and engaged in the bearings or ears 13 so that the bridge bar 14 is swingingly connected to and mounted upon the supporting band or yoke 12. The end portion of the bar 14 having the pintle sleeve 15 has formed thereon laterally extending stop wings 17, while the bearings or ears 13 are cut and formed with abutment extensions or tongues 18 adapted to cooperate with the wings 17 so as to limit the opening movement of the bridge bar 14 when swung to the position shown in Figs. 1 and 3 of the drawings.

Carried on the band or yoke 12 at the front of the well B centrally thereof is a spring held manually releasable catch device 19 which is adapted for locking engagement with the keeper end 20 of the bridge bar 14, which keeper end is formed at the free extremity of the bar remote from the pivoted end thereof, the catch device 19 being supported upon a pivot 21 which carries a spring 22 active upon the catch device 19 to hold the same in position for latching engagement with the keeper end 20 when the bridge bar 14 is swung to lower or closing position. The catch device 19 is formed with a relatively wide engaging portion 23 which is bent forwardly at an angle and this portion is adapted to be engaged by the finger of the user of the ink well B or by a pen or other writing implement. The catch device 19 has mounted therein an adjustable stop pin 24 which limits the swinging of said catch device on the pivot 21 under the action of the spring 22 which tensions said catch device and by proper adjustment of the pin 24 accurate latching action of the catch device 19 with the keeper end 20 of the bridge bar 14 can be had as will be clearly apparent.

Resiliently connected with the bridge bar 14 intermediate the ends thereof is a stopper member 25 preferably in the form of a convexed circular shaped head made from rubber, although the same may be made from any other suitable material impervious to liquid. Passed centrally through the stopper member 25 is a fastener 26 with which is connected one end of a coiled compressible spring 27 having its other end connected to a fastener 28 mounted in the bridge bar 14, the spring 27 being of the required resiliency to cause the positive and firm seating of the closure member 25 in the mouth of the chamber C in the well B when the bridge bar has been swung to closed position as shown in Fig. 2 of the drawing from the open position shown in Fig. 1 of said drawings. The spring 27 on the closing of the bridge bar 14 exerts not only a tension upon the stopper member 25 but also tensions said bridge bar 14 so that when the catch device 19 is released to disengage the keeper end 20 of the bridge bar 14 the latter will be automatically forced to open position as shown in Fig. 1 of the drawings from the closed position shown in Fig. 2 of said drawings, thereby eliminating the necessity of the use of a spring at the pivoted end of the bridge bar 14 to effect the opening movement thereof.

It will be apparent that by the resilient mounting of the stopper member 25 through the use of the spring 27 the said stopper member will self adjust itself on the closing of the bridge bar 14 to become properly seated within the mouth of the ink chamber C in the well B and the tension of said spring 27 upon the stopper member when in closed position will effect the tight closing of the chamber C and the complete sealing thereof by the stopper 25 at the mouth of said chamber C so as to exclude dust, dirt, air and

moisture from the ink chamber C of the well B and thus avoid any deterioration of the quantity of ink contained in said chamber C or the evaporation thereof.

In Figs. 5 and 6 of the drawings there is shown a slight modification of the closure adapting the same for an ink bottle and the same comprises a split ring like clip or supporting band 29 which is adapted to be mounted upon the neck of the bottle 30 to embrace the same adjacent the mouth of said bottle and this clip or band 29 at one side of the bottle swingingly supports the bridge bar 31 which is pivoted for opening and closing movement as at 32, the clip or band 29 being fastened upon the bottle 30 through the medium of the removable fastener 33, while at the opposite side of the bottle 30 and pivotally supported in the clip or band 29 diametrically opposite to the pivot 32 is a spring held hand releasable latch or catch device 34 adapted for latching engagement with the keeper end 35 of the bridge bar 31 to fasten the latter in closing position as is clearly shown in Fig. 5 of the drawing.

Resiliently connected to the bridge bar 31 is the stopper member 36 through the medium of a compressible spring 37 and this stopper member 36 is adapted to be seated in the mouth of the bottle 30 when the bridge bar 31 is swung to closed position and thus by said stopper member 36 the bottle will be completely closed and sealed. The modified form of closure in its construction and arrangement operates identically to the closure illustrated in Figs. 1 to 4 of the drawings and as hereinbefore described.

It is of course understood that changes, modifications and variations may be made in the invention such as fall properly within the scope of the appended claims without departing from the spirit of the invention or sacrificing any of its advantages.

From the foregoing it is believed that the construction and manner of operation of the closure will be clearly understood and therefore a more extended explanation has been omitted.

What is claimed is:

1. The combination with a fluid container having an open mouth, of a closure comprising a stopper member adapted for engagement in the open mouth, a swinging bridge bar constructed and arranged for mounting upon the container and adapted when in one position to bridge the mouth of said container, a latching device constructed and arranged to fasten the bridge bar in bridging relation to the mouth of the container, and a resilient connection between the bridge bar and said stopper member to tension the same when the bridge bar is in bridging relation to the mouth of the container, whereby the stopper member will be self-adjusting and firmly seated in the mouth of the container, and on the releasing of the bridge bar, the latter will be swung to lift the stopper member from the mouth of the container.

2. The combination with a fluid container having an open mouth, of a closure comprising a stopper member adapted for engagement in the open mouth, a swinging bridge bar constructed and arranged for mounting upon the container and adapted when in one position to bridge the mouth of said container, a latching device constructed and arranged to fasten the bridge bar in bridging relation to the mouth of the container, a resilient connection between the bridge bar and said stopper member to tension the same when the bridge bar is in bridging relation to the mouth of the container, whereby the stopper member will be self-adjusting and firmly seated in the mouth of the container, and on the releasing of the bridge bar, the latter will be swung to lift the stopper member from the mouth of the container, and means constructed and arranged to embrace the container and constituting a mounting for the bridge bar and the latching device.

3. The combination with a fluid container having an open mouth, of a closure comprising a stopper member adapted for engagement in the open mouth, a swinging bridge bar constructed and arranged for mouting upon the container and adapted when in one position to bridge the mouth of said container, a latching device constructed and arranged to fasten the bridge bar in bridging relation to the mouth of the container, a resilient connection between the bridge bar and said stopper member to tension the same when the bridge bar is in bridging relation to the mouth of the container, whereby the stopper member will be self-adjusting and firmly seated in the mouth of the container, and on the releasing of the bridge bar, the latter will be swung to lift the stopper member from the mouth of the container, and means constructed and arranged to embrace the container and constituting a mounting for the bridge bar and the latching device, said stopper member having a cushion head.

4. The combination with a stopper member constructed and arranged for closing the mouth of a container, of a supporting yoke for completely embracing a container and having means for adjustably and detachably securing the same thereon, a swinging support carried by said yoke, a resilient member connecting the stopper member to the swinging support and adapted when the latter is moved to one position for exerting a tension on said stopper member and support, and a latching device carried by the yoke and engageable with the swinging support when tensioned by the resilient member.

5. A closure of the character described, comprising a stopper member constructed and arranged for closing the mouth of a con-

tainer, a swingiing suport for said stopper member, a resilient member connecting the stopper member to the swinging support and adapted when the latter is moved to one position for exerting a tension upon said stopper member and support, means for latching the swinging support when tensioned by the resilient member, and means for swingingly fastening the support upon a container and adapted to carry the latching means.

6. A closure of the character described, comprising a stopper member constructed and arranged for closing the mouth of a container, a swinging support for said stopper member, a resilient member connecting the stopper member to the swinging support and adapted when the latter is moved to one position for exerting a tension upon said stopper member and support, means for latching the swinging support when tensioned by the resilient member, means for swingingly fastening the support upon a container and adapted to carry the latching means, and coöperating means on the last named means and said support for limiting the movement of the latter when swung in one direction.

In testimony whereof, I affix my signature hereto.

WILLIAM H. LUCAS.