No. 711,684. Patented Oct. 21, 1902.

A. M. TYLER.

AUTOMATIC INK WELL.

(Application filed Apr. 12, 1902.)

(No Model.)

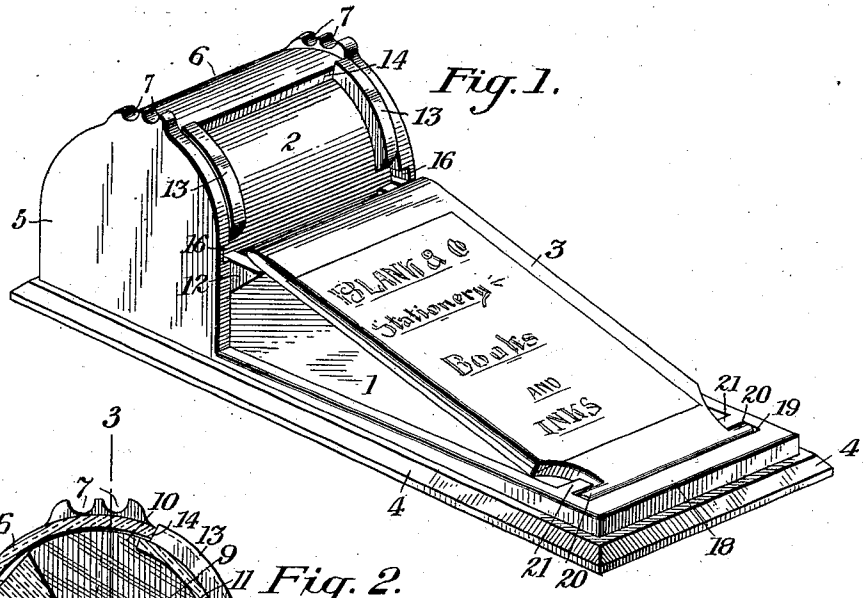

Fig. 1.

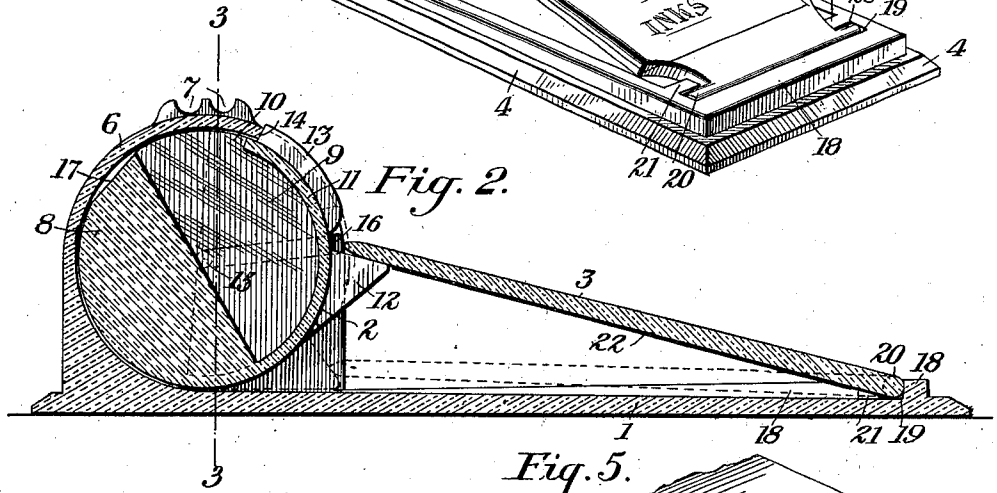

Fig. 2.

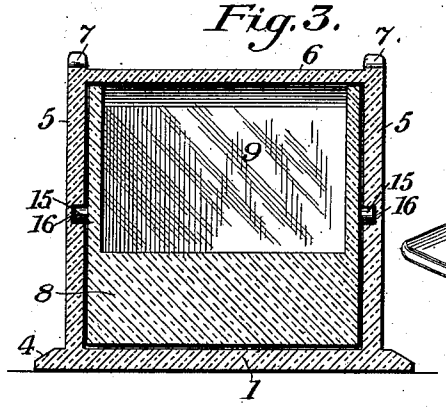

Fig. 3.

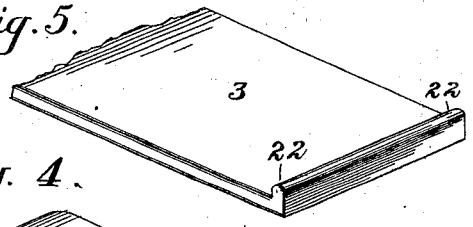

Fig. 4.

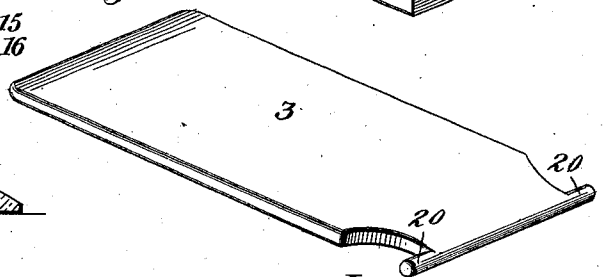

Fig. 5.

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UNITED STATES PATENT OFFICE.

ARTHUR M. TYLER, OF RICHMOND, VIRGINIA, ASSIGNOR OF THREE-TENTHS TO COLLIE SKIDMORE, OF PARKERSBURG, WEST VIRGINIA, AND HARRY E. SPILMAN AND MARION G. TYLER, OF SPILMAN, WEST VIRGINIA.

AUTOMATIC INK-WELL.

SPECIFICATION forming part of Letters Patent No. 711,684, dated October 21, 1902.

Application filed April 12, 1902. Serial No. 102,633. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR M. TYLER, a citizen of the United States, residing at Richmond, in the county of Henrico and State of Virginia, have invented a certain new and useful Automatic Ink-Well, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to automatic ink-wells, or what may be more properly termed "self-closing" ink-wells.

The object of the present invention is to provide a simple, effective, convenient, and economical ink-well comprising a minimum number of parts and free from springs, rivets, cushions, and similar devices found upon ink-wells in common use. Under the construction employed in the present invention there is nothing to get out of order, easy access is had to the ink-supply, and after removing the pen from the ink the well closes automatically, thus excluding dust and other foreign matter and obviating rapid evaporation and drying of the ink. The several parts of the device are also easily and quickly separable, which greatly facilitates cleaning.

With the above and other objects in view, the nature of which will more fully appear as the description proceeds, the invention consists in the novel construction, combination, and arrangement of parts, as hereinafter fully described, illustrated, and claimed.

In the accompanying drawings, Figure 1 is a perspective view of an automatic or self-closing ink-well constructed in accordance with the present invention, showing the parts in their normal positions. Fig. 2 is a central vertical longitudinal section through the same, indicating the two limits of movement of the oscillatory ink-cup in full and dotted lines. Fig. 3 is a vertical cross-section through the ink-cup and housing, taken a little to one side of the pintles or trunnions of the ink-cup. Fig. 4 is a detail perspective view of the finger-plate. Fig. 5 shows another form of finger-plate in reverse perspective.

Like reference-numerals designate corresponding parts in all figures of the drawings.

The automatic or self-closing ink-well contemplated in this invention comprises but three parts—namely, a base or stand 1, an oscillatory ink-cup 2, and an operating finger-plate 3—and it may here be stated that all of said parts may be formed of glass, rubber, metal, or any other suitable material without sacrificing any of the advantages hereinafter set forth.

The base 1 is preferably rectangular in plan and provided with a beveled or ornamental edge 4, extending entirely around the same. At one end the housing extends upward from the base, said housing comprising the oppositely-arranged sides or cheek-pieces 5 and a curved wall 6, connecting the sides and extending upward from the base to a point just in advance of the center of the top of the housing, as shown in Fig. 3. The sides 5 of the housing may, if desired, be extended at the top above the curved wall 6 and formed with notches or recesses 7, which constitute a pen-rack in which one or more penholders may be placed. At the front the housing is left open, as best shown in Fig. 1, to admit of the insertion and removal of the oscillatory or rocking ink-cup 2, which is substantially in the form of a cylinder, about half of which is solid, as shown at 8, to form a weight, the remainder of the well being hollow to form an ink-holding compartment 9, access to which is had through an opening 10 normally at the top of the cup and formed by terminating the outer curved wall or shell 11 of the cup at a distance from the solid portion 8 thereof.

The ink-cup 2 is provided at the front side with downwardly-projecting lugs 12, substantially triangular in shape and forming a support for the free edge of the finger-plate 3. The lower sides or edges of the lugs 12 are adapted when moved downward to come in contact with the base 1, and they thereby serve as a means for limiting the movement of the ink-cup in one direction. The movement of the cup in the opposite direction is limited by a pair of ribs 13, projecting outward from the wall 11 of the ink-cup and terminating in shoulders 14, which meet the edge of the curved wall 6 of the housing just after the opening of the ink-cup has passed beneath the wall 6 of the housing.

The oscillatory or rocking ink-cup 2 is pro-

vided at opposite ends with pintles or trunnions 15, which are received in grooves 16, formed in the adjacent inner surfaces of the sides 5 of the housing, as shown in Figs. 1 and 2. The grooves 16 are preferably inclined downward toward the rear, as shown in Fig. 2, so as to avoid any tendency of the ink-cup to move outward from the housing as it is rocked by pressure applied to the finger-plate 3. By removing the finger-plate 3 and rocking the ink-cup to its lower position said ink-cup may be removed from the front of the housing, as when the cup is in that position the flat or partially-cut-away portion 17 of the cup lies uppermost and will readily pass by the forward edge of the curved wall 6. When the cup is in its normal position, as shown in Fig. 2, it cannot be removed on account of the fact that it will not pass by the forward edge of the wall 6, and it will be apparent that the cup is always held in the position shown in Fig. 2 by reason of the disposition of the weighted portion of the cup.

Extending around the forward portion of the base 1 is a flange 18, which at the extreme front of the base is made of sufficient thickness to provide for the formation of a recess 19, in which are received the oppositely-projecting pintles 20, and at the forward end of the finger-plate 3 are stop-lugs 21, serving to prevent the movement of the pintles 20 in a horizontal direction.

From the foregoing description it will be apparent that by pressing the little finger of the hand or any other portion of the hand upon the plate 3 and exerting a slight downward pressure said plate will operate to partially turn or rock the ink-cup, which will bring the opening of the cup to a point in advance of the forward edge of the curved wall 6. A pen may then be dipped into the ink and upon being removed and upon the hand being lifted from the plate 3 the ink-cup and finger-plate 3 are restored to their normal positions by the operation of the weighted portion 8 of the ink-well. The ink-well is thus automatically closed and the evaporation of ink and admission of dust to the ink-cup prevented.

Where the plate 3 is formed of glass or other transparent material an advertising sheet or strip 22 may be secured to the under side thereof, so that the advertising matter may be visible and kept clean. Where the plate is formed of metal, the advertising matter may be stamped or otherwise represented thereon in any preferred manner.

In Fig. 5 another form of plate 3 is shown. Instead of the pintles 20 projecting at opposite sides of the plate the latter is provided on the lower side with a transverse rib or bead 22, having its lowest portion rounded to form a rocker and adapted to rest in and upon the base 1, which is correspondingly recessed to receive the same.

It will be apparent that the invention is susceptible of considerable modification in the form, proportion, and minor details of construction, and I therefore reserve the right to make such changes as properly fall within the scope of the appended claims.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

1. The combination with a stand, of a self-closing oscillatory ink-cup, and a manually-operated plate resting at one end on the stand and having its opposite end in engagement with the ink-cup, substantially as described.

2. The combination with a base or stand, comprising a housing with an opening at one side, of a substantially cylindrical counterbalanced oscillatory ink-cup mounted in the housing and provided with an opening adapted to register with the opening in the housing, substantially as described.

3. The combination with a base or stand, and a housing open at one side, of a substantially cylindrical axially-pivoted oscillatory ink-cup, manually-operated means for opening the cup, and means for limiting the oscillatory movement of the cup, substantially as described.

4. The combination with a base or stand, and a housing thereon open at one side, of a substantially cylindrical oscillatory ink-cup journaled in the housing and provided with offstanding lugs, and a pivotally-mounted finger-plate in operative engagement with said lugs, substantially as described.

5. The combination with a base or stand, and a housing thereon, provided with exteriorly-covered grooves in its opposite sides, of a cylindrical oscillatory and self-closing ink-cup, having trunnions which are received in said grooves, and a manually-operated device for rocking the cup in the opposite direction.

6. The combination with a base or stand, and a housing open at one side, of a substantially cylindrical self-closing ink-cup having a portion of its outer surface cut away to admit of the removal of the cup from the housing, and manually-operated means for opening the cup.

7. The combination with a base or stand, having the front portion thereof recessed, and a housing at the opposite end of the base left open on one side, of an oscillatory ink-cup mounted in the housing, and a manually-operated plate having one edge arranged in the recessed front portion of the base and coöperating at its free edge with the ink-cup, substantially as described.

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

ARTHUR M. TYLER.

Witnesses:
ARTHUR A. LOTH,
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