W. J. SOMERVILLE.

INK WELL.

APPLICATION FILED MAY 15, 1909.

960,726. Patented June 7, 1910.

FIG. 1

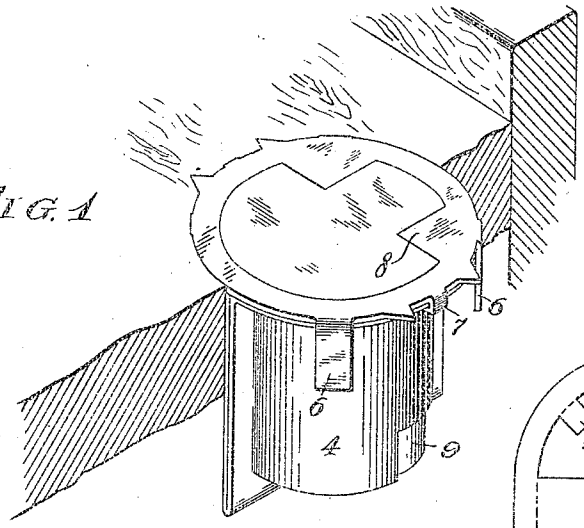


FIG. 2

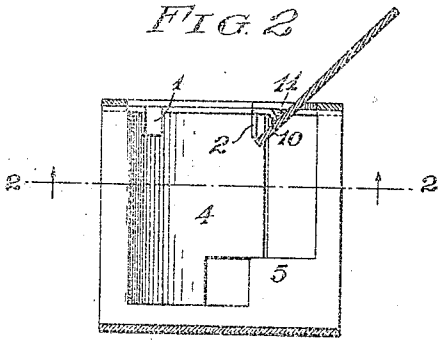


FIG. 4

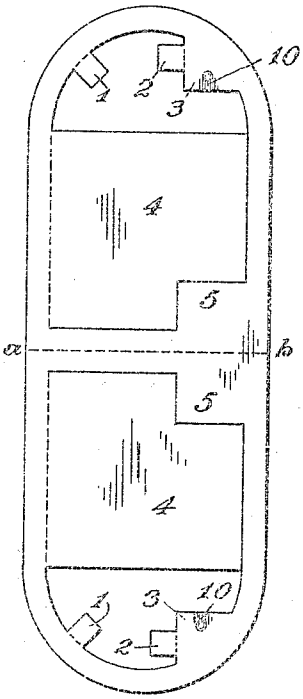


FIG. 3

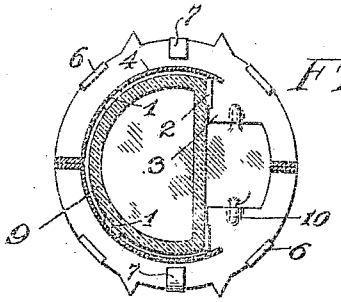
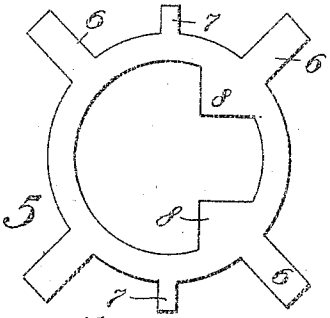


FIG. 5



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UNITED STATES PATENT OFFICE.

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INK-WELL.

960,726. Specification of Letters Patent. Patented June 7, 1910.

Application filed May 15, 1909. Serial No. 496,121.

To all whom it may concern:

Be it known that I, WILLIAM J. SOMERVILLE, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and useful Improvement in Ink-Wells, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings.

This invention relates to ink wells, and more particularly to that variety which are permanently held upon the desk where used and are mounted within an opening in the desk so as to lie flush with the top surface of the desk.

The invention comprehends an ink well comprising a frame which supports an ink receptacle, a cap surmounting the same and a cover which is pivoted between the frame and the cap. The frame is made by a single stamping, that is to say, from a single piece of sheet metal upon one operation of the forming dies, which metal piece is afterward bent into proper form. Moreover, the surmounting cap and the closure or cover for the ink receptacle are each formed from a single piece of metal stamped from a single blank and subsequently assembled with a frame.

The invention further comprises an ink well which is simple of construction, and cheap to manufacture and one which, when mounted upon the desk will have the closure or cover flush with the surface of the top part of the desk.

Generally speaking, the invention comprises the elements and combinations which are set forth in the accompanying claims.

Reference should be had to the accompanying drawings forming a part of this specification, in which—

Figure 1 is a perspective view of the ink well showing its position when mounted upon a desk; Fig. 2 is a central vertical section through the frame, cap piece and cover; Fig. 3 is a cross section upon the line 2—2 of Fig. 2 looking in the direction of the arrows; Fig. 4 is a plan view of a metallic stamping as it comes from the dies, which stamping is to be bent to form the frame; Fig. 5 is a plan view of the cap piece as it comes from the dies.

The ink well herein provided is of that type which are usually employed in connection with school desks where it is important that the top of the ink well lie flush with the top of the desk in order that the ink well may not interfere with the use of the desk when books or other objects are placed thereon. However, I do not limit my invention to this single use.

The ink well comprises the frame, a cap piece which surmounts the frame and is secured thereto, a cover which is pivotally held between the top of the frame and the cap piece, and an ink receptacle which is supported by and held within the frame. The frame, cap piece and cover are each made from single pieces of sheet metal and are formed by one operation of the forming dies.

In Fig. 4 is shown the metallic piece which is to form the frame of the ink well, as the same comes from the dies. It will be noted that the upper and lower parts of the blank are symmetrical with respect to a median line *a*—*b*. The metallic billet when subject to the dies is sheared or cut through along those portions which are represented by full lines in the drawing and are left uncut along those portions which are represented by dotted lines. It will be apparent that the material comprehended within the semi-circular parts of the billet at the opposite ends is cut out, with the exception of the lugs 1, 2 and 3 and further that the portions 4 are left attached to the metal member along one edge thereof. This piece of metal is bent along the line *a*—*b* so that the part above and below this line register with with each other. The end pieces or those pieces which are formed semicircular are next bent so as to extend at right angles to the plane of the remaining portion of the billet, which will in effect form a circular top, which strip of metal is formed of side pieces and a connecting bottom piece, the metal strip assuming in form a rectangle, or where desired, the corners may be clipped, producing other forms. It will be noted that in the preparation of the frame the metal is cut in a manner to provide right angular projecting portions 5 which, when the stamping is folded in the manner just described, will form a step for the purpose of engaging and holding the ink receptacle in place. The members 4 are bent about the dotted line shown in Fig. 4 as an axis, and are curved to the same radius as the semicircular portions of the frame, these members 4 which may be called shields, are held in proper position by bending the

lugs 1 downward so as to engage the shields upon their inner sides. The resiliency of the metal in the members 4 will hold them against the lugs 1, and the lugs 1 will in turn prevent the shields from bearing upon the ink receptacle with too much force so as to prevent its ready removal from the frame.

The precise form of the stamping illustrated in Fig. 4 may be varied somewhat, if desired. That is, the blank may be so formed that the same may be joined and bent along other portions thereof, than the portion here shown, and I do not confine myself to the form shown. However, the frame when bent into shape will always be substantially as shown and herein described.

In Fig. 5 is shown a cap piece which is adapted to be mounted upon the top part of the frame and to coöperate therewith. The cap piece is formed from a single piece of sheet metal and is so formed as to provide lugs 6 and shorter lugs 7. The interior portion of this cap is cut out so as to leave a space of the form shown in Fig. 5. The radius of curvature of the bounding sides of the cap corresponds to the radius of curvature of the top part of the frame. When the cap is super-imposed upon the top of the frame, the projections 8 upon the cap match with the projections 3 upon the frame. The lugs 7 are bent around the frame so as to engage upon the under side of the top thereof in the manner clearly shown in Fig. 1. This will hold the cap and frame in assembled position, and will also prevent the frame from separating. The projections 6 are bent to assume a position at substantially right angles to the plane of the remaining portion of the cap, as shown in Fig. 1, and are adapted to engage the wood which surrounds the ink well frame to hold the ink well in proper position.

It may be desirable to form pointed projections 8 upon the cap member, which are adapted to stick into the wood, and so prevent turning or other movement of the ink well.

Within the space inclosed by the shields 4, is placed an ink receptacle 9 which rests upon the lower part of the metallic strip that connects the opposite parts of the top portion of the frame. The receptacle is held in proper position by engagement with the projecting portions 5 and also by engagement with lugs 2 which are bent to extend downwardly and engage with the rear portion of the ink receptacle. The receptacle is prevented from movement in a sidewise direction by the shields 4. It will thus be apparent that the ink receptacle is prevented from any extended movement within the frame and yet may readily be pushed upward by merely inserting the finger beneath the receptacle, and pushing up for it will be apparent that the bottom of the receptacle is supported only by a thin strip, which covers only a small amount of the under surface of the receptacle. A cover is provided for the receptacle which is shaped to completely fill the space within the cap member, and it will therefore assume the shape shown by the interior portion of the cap piece in Fig. 5. This cover is formed of a single piece of metal, and is provided with two integral extending pintles 11, indicated in Fig. 2. These members 11 are adapted to seat within recesses 10 which are formed upon the portions 3 of the frame by a depression of the metal.

In assembling, the cover is placed in position with the members 11 resting in the grooves 10. The cap piece is then placed in position and secured as above indicated. The portions 8 of the cap piece will cover the slots 10 so that the pintles 11 cannot become disengaged, yet allowing full rotary movement of the same. The cover will thereby be pivotally held.

It will be noted that the cover has a portion thereof projecting behind the pintles. This portion may be engaged by any suitable object and pushed downward, which will cause the cover to swing about its pivot, and assume the position shown in Fig. 2. This feature dispenses with the necessity of providing a handle to open the cover or any other means for accomplishing this result which will project above the plane of the top portion.

From the foregoing description, it will be apparent that the ink well provided is durable and yet simple in its construction. Furthermore, the particular way of constructing the ink well renders its cost of manufacture very low.

Having thus described my invention, what I claim is:

1. An ink well comprising a frame, a cap surmounting the frame, a cover pivotally held by the frame and cap, each member named being formed from a single piece of sheet metal, and lugs formed upon the cap bent to engage the frame whereby the members are held together.

2. An ink well comprising a frame formed of a single piece of sheet metal having an annular top piece, and an angular strip connecting opposite parts of the top piece, an ink receptacle within the frame and supported by the said strip, and a closure for the top of the ink receptacle.

3. An ink well comprising a frame made from a single piece of sheet metal, portions of which are cut and bent to form an annular top piece, and a strip formed of side pieces and a bottom piece which connect opposite portions of the top piece, a cap piece formed of a single piece of sheet metal surmounting the top of the frame and secured

to it, and a closure member pivotally secured by the top piece of the frame and cap.

4. An ink well comprising a frame having an annular top member and a strip connecting opposite portions of the top of the frame, shield members carried by the frame, an ink receptacle within the frame supported by said strip and retained in place by the shield member, and a cover for the ink receptacle.

5. An ink well comprising a frame having an annular top member, and a strip comprising side members and a connecting bottom member, said strip connecting opposite points upon the top of the frame, shields carried by one of the side members of the connecting strip, said shields being curved to correspond with the top of the frame member, there being lugs dependent from the top member opposite the shield, and a cover for the ink receptacle.

6. An ink well comprising a frame stamped from a single piece of metal having an annular top member, and a strip formed of side pieces and a bottom member connecting opposite points upon the top of the frame, shields cut from metal except at those portions where they join one of the side pieces of the strip, said shields being bent to conform to the curvature of the top of the frame, lugs formed integral with the top of the frame and bent at right angles to the plane of the top, said lugs engaging the shields from the inner sides thereof, an ink receptacle supported by the said strip, and held in place by the shield members and the last mentioned lug upon the strip, and a closure for the ink receptacle.

7. An ink well for desks, comprising a frame, a cap piece surmounting said frame, said cap piece being formed from a single piece of sheet metal, and also formed with projecting lugs adapted to engage the desk for the purpose of holding the ink well in place, and a receptacle for ink supported in said frame.

8. An ink well for desks, comprising a frame, a cap surmounting said frame, said cap being stamped from a single piece of sheet metal, lugs formed on said cap and bent at right angles to the plane of the cap, said lugs being adapted to engage the desk to hold the ink well, other lugs formed with a point adapted to stick into the wood of the desk to hold the ink well in place, and an ink receptacle supported by the frame.

9. An ink well comprising a frame formed with a top portion, depressions formed in the top portion of said frame, a cover having projecting pintles which seat within the depressions, and a top piece which engages the top of the frame and holds the pintles in their depressions, said top piece having an opening corresponding in shape and size to the cover.

10. An ink well comprising a frame having a top portion, lugs projecting inwardly from the top portions of said frame, depressions being formed in said lugs, a cover formed with a semi-circular portion, and a projecting tongue, pintle members integral with the tongue of the cover projecting therefrom and seated within the depressions in the frame, a portion of said tongue extending beyond the pintles, a cap member having an opening in the central portion thereof corresponding in shape and size with the cover, said cap being secured to the top of the frame and preventing the pintles upon the cover from displacement, and a receptacle for ink supported by the frame.

11. An ink well for desks, comprising a frame, a cap secured to said frame, said cap having an opening, a pivoted cover fitting within the said opening, lugs formed on the cap adapted to engage with the desk to hold the ink well in place.

12. An ink well comprising a frame, said frame being formed by stamping from a single sheet of metal, the stamping having semi-circular portions, said metal being bent along a median line so that the opposite halves of the stamping register, and the semi-circular portions being bent at right angles away from each other to form a circular top part, portions of said blank being severed except along one side, said portions being bent to conform to the curvature of the before mentioned semi-circular parts, and an ink receptacle supported in the frame.

13. An ink well for desks comprising in combination with a receptacle for the ink, a frame, said frame being stamped from a single piece of sheet metal which is bent along a median line, portions of said metal being bent to form an annular top member, other portions being cut to form shields for preventing displacement of the ink receptacle, the remaining portion of the metal forming a support for the bottom part of the ink receptacle, substantially as described.

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

WILLIAM J. SOMERVILLE.

Witnesses:
BRENNAN B. WEST,
J. B. HULL.