June 24, 1924.

1,498,640

J. W. RAYNOLDS

PAINT BOX

Filed March 2, 1923

Fig. 1.

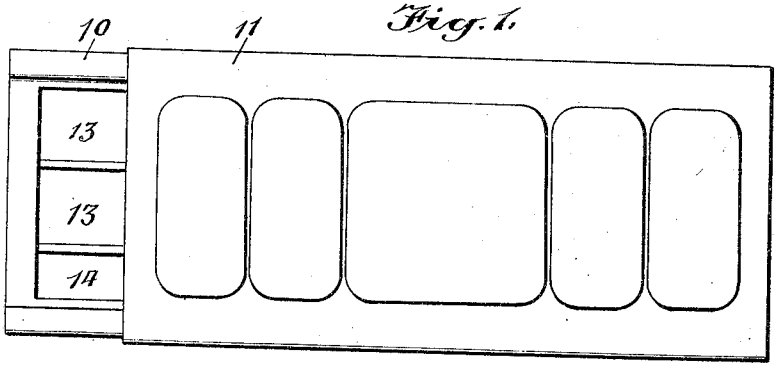


Fig. 3.

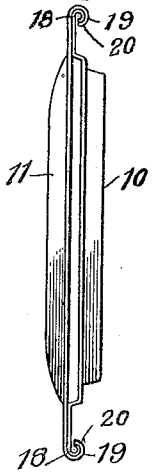


Fig. 4

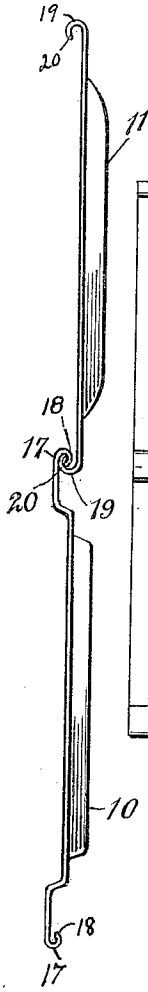


Fig. 2.

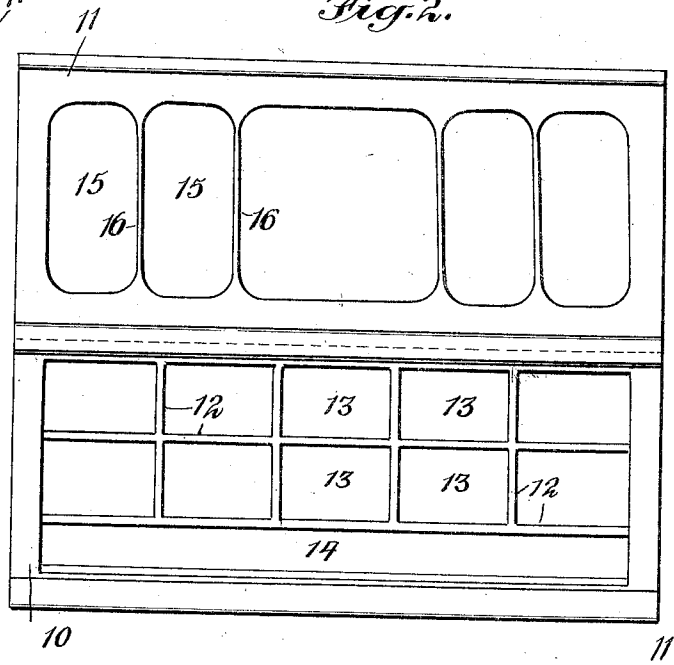


Fig. 5.

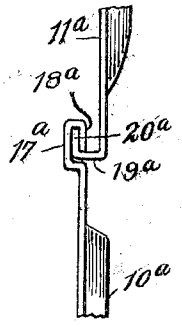
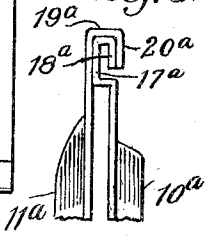


Fig. 6.



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UNITED STATES PATENT OFFICE.

JAMES W. RAYNOLDS, OF EASTON, PENNSYLVANIA, ASSIGNOR TO BINNEY & SMITH CO., OF NEW YORK, N. Y., A CORPORATION OF NEW JERSEY.

PAINT BOX.

Application filed March 2, 1923. Serial No. 622,296.

To all whom it may concern:

Be it known that I, JAMES W. RAYNOLDS, a citizen of the United States, and resident of Easton, in the county of Northampton and State of Pennsylvania, have invented certain new and useful Improvements in Paint Boxes, of which the following is a specification.

This invention is an improved paint box of that type which has the several colors or paints in separate compartments or pans in the body of the box, and has the cover of the box so formed that when in open position it is adapted for use in the mixing of paints or the blending of colors.

In order that the artist may conveniently hold in one hand the body of the box with its colors and the cover of the box with its mixing or paint-blending surface or compartments, it is customary to hinge the cover to the body. The cutting, forming, and assembling of the hinge parts involves a very important element in the cost of manufacture of those boxes which are made up for sale at the lowest possible price. The main object of my invention is to avoid the expense of the hinge heretofore used and to provide simple and easily formed edge portions for the box and cover which will serve to connect the cover and the box body with the cover in either open or closed position.

In carrying out my invention both the box and the cover are provided with beaded or inturned edge portions so shaped or bent that the cover may be removed or replaced only by a sliding movement with both of its opposite side edges interengaging with the side edges of the box. These beaded or edge portions are also so formed that the cover when removed may have one edge brought into interlocking relationship with one edge of the box so as to securely hold the parts together with the cover in open position. Preferably the flanges or beads are the same at opposite edges so that either edge of the cover may be connected to either edge of the box. These flanged or beaded edges of the cover and box may be formed by simple and inexpensive operations and no expense is required in connecting the box and cover, as is the case where parts of each must be bent around a hinge pintle.

In the acompanying drawings:

Fig. 1 is a top plan view of a box constructed in accordance with my invention, the cover being partially removed by endwise sliding movement in respect to the body of the box.

Fig. 2 is a plan view showing the cover in open position with one edge connected to one edge of the body of the box.

Fig. 3 is an end view on a somewhat larger scale showing the cover in closed position.

Fig. 4 is an end view with the parts in the position shown in Fig. 2, and

Figs. 5 and 6 are views similar to portions of Figs. 2 and 3, but showing a slightly modified form of construction.

My improved box is made up of two members 10 and 11, one of which may serve as the body portion of the box and the other as the cover. So far as concerns the specific form of these two members a wide variation in detail of construction is permissible. For use as a paint box each member may be formed of a single piece of sheet metal, the member 10 having ridges or partitions 12 dividing it into compartments 13 for the several colors or paints, and a compartment 14 for a brush. The other member 11 may serve as the cover and may have slightly dome shaped portions 15 separated by ridges or flanges 16 to form shallow trays or compartments in which the paints may be mixed or the colors blended.

As the important feature of my invention I so construct the side edges of the two members that they may be slidably connected with the cover in open or closed position. To accomplish this the side edges of one of the members, for instance the box member 10, are folded or bent over to form beads 17 with inwardly facing flanges 18. The beaded portions are thus hollow and are open along the inner side. The other member, for instance the cover member 11, has its side edges bent or folded over to form beads 19 and inwardly turned flanges 20. The beads 19 of the cover are of such size that they may substantially completely encircle the beads 17 of the box, and the spacing is such that the cover may be slid endwise onto the box with the box beads within the cover beads. Thus the edge portions interlock to prevent any relative movement of the box and cover except an endwise sliding movement when the cover is in closed position.

As an important feature these beads and the inturned or terminal flanges are so constructed that the flange 20 of the outer

bead may be slid endwise within the bead 17 of the box, as is shown particularly in Fig. 4. With the parts in this position the cover and box are locked against any sliding movement other than an endwise sliding movement. and also there may be a greater or lesser swinging or hinge movement of one member in respect to the other. Such movement is limited and the cover member cannot be swung back materially farther than what would correspond to swinging through 180° from closed to open position about an ordinary hinge. With the parts interlocked as in Figs. 3 and 4, the cover has its mixing compartments facing upwardly and the artist may conveniently hold both the cover and box in one hand, and with both in the proper position for use. By means of this interlocking flange and bead construction the body and cover may be locked together with the cover in either open or closed position, but the cost of forming the beaded edges on the box and cover is very materially less than that required for permanent connecting of the parts by an ordinary hinge with its pintle. I do not wish to be limited to any particular curvature or form of the beaded edges other than such as is necessary to accomplish the desired interlocking of the members in open and closed position, and permitting of their separation when in either position by endwise sliding movement.

In Figs. 5 and 6 I have shown a slightly modified form of construction in which the beads 17^a and 19^a are of rectangular rather than curved outline, and the terminal flange portions 18^a and 20^a lie substantially parallel to the body portion of the cover and box respectively. In this form the parts are more rigidly connected and no swinging is possible.

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

1. A box including two members, one serving as a box body and the other as a cover, and each having two opposite side edges thereof bent downwardly and thence inwardly to form beads the full length of said edges, the two beads of one member being adapted to partly encircle the two beads of the other member so as to prevent any relative movement of the two members except an endwise sliding movement the full length of the box when the cover is in closed position with both of its beads encircling the two beads of the box, and being constructed and arranged for one bead of one member to interlock with one bead of the other member and connect the two members by an endwise sliding movement the full length of the box with the cover in open position and extending in a direction substantially 180° from its closed position.

2. A box including two members, one serving as a box body and the other as a cover, and each having two opposite side edges formed with beads, the beads of the cover member being of larger diameter than the beads of the box member, so that the cover may slide endwise in respect to the box the full length of the box with the beads of the box partially encircled by the beads of the cover to entirely separate the box and cover, and one bead of the cover having a flange portion adapted for longitudinal sliding movement within the bead of the box to interlock the box and cover with the cover in open position and extending in a direction substantially at 180° from its closed position.

3. A box constructed as defined in claim 2 in which the two members are each formed of a single piece of sheet metal, and in which the interengagement of the beads with the cover in open position prevents any relative movement of the box and cover except an endwise sliding movement.

4. A box including a substantially shallow body portion stamped from a single piece of sheet metal and having outwardly extending substantially flat flanges entirely encircling the box at the upper edges of its side walls, the flanges of two opposite walls being bent downwardly and thence inwardly to form hollow marginal beads, and a cover adapted for sliding engagement with the surfaces of said flanges and having two of its opposite edges bent downwardly and thence inwardly to form beads of slightly larger diameter than the beads of the body portion and adapted to partly encircle said first mentioned beads as the cover is slid endwise of the box into closed position, one of the beads of the cover being adapted to interlock with one of the beads of the body portion with the two in endwise sliding relationship, and the cover of the box extending in a direction substantially 180° from its closed position.

Signed at Easton, in the county of Northampton and State of Penna., this twenty-sixth day of February, A. D. 1923.

JAMES W. RAYNOLDS.