Oct. 25, 1927.

1,646,665

C. M. SMITH

BOX

Filed Aug. 2. 1926

Fig. 1.

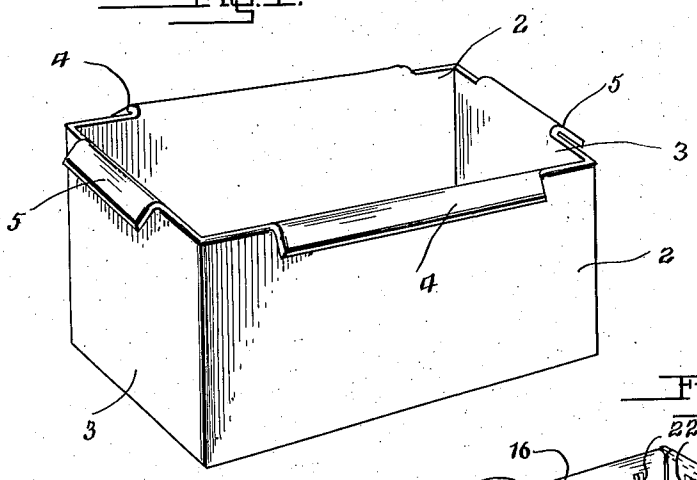


Fig. 2.

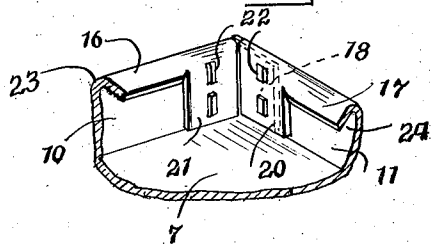


Fig. 4.

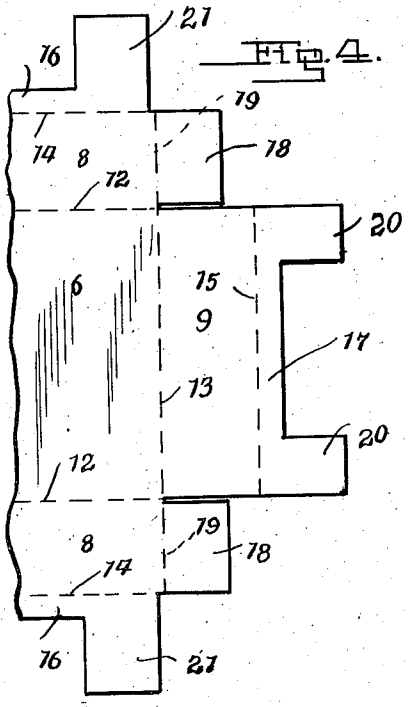
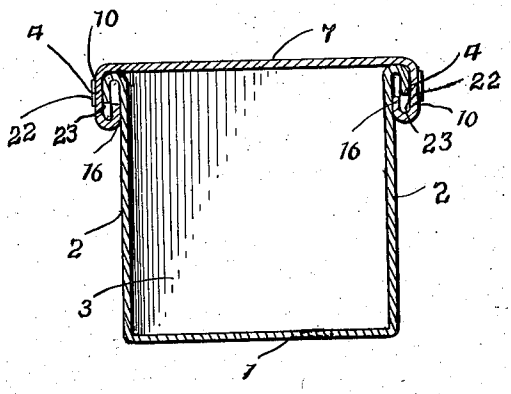


Fig. 3.



Inventor

C.M. Smith

By Lacey & Lacey, Attorneys

Patented Oct. 25, 1927. 1,646,665

UNITED STATES PATENT OFFICE.

CHARLES M. SMITH, OF NEWTON, KANSAS.

BOX.

Application filed August 2, 1926. Serial No. 126,622.

This invention relates to paper receptacles and more particularly to a box preferably formed of cardboard and having a removable cover.

One object of the invention is to provide a box with a cover which may be readily removed when the box is empty but will be securely held in place and difficult to remove when the box is filled.

Another object of the invention is to provide the cover with internal pockets and the box with locking tongues which will be compressed towards the walls of the box when the cover is applied and returned to position to enter the pockets and prevent ready removal of the cover.

Another object of the invention is to greatly strengthen the cover and prevent the pocket-forming portions from being easily torn after the cover is applied to the box and an attempt made to open it.

Another object of the invention is to form the cover from a single blank which may be folded to provide the top and walls thereof with the walls reinforced at their corners and carrying the lock-receiving pockets.

The invention is illustrated in the accompanying drawing, wherein

Figure 1 is a perspective view of the box;

Fig. 2 is a perspective view of one corner portion of the cover;

Fig. 3 is a transverse sectional view through the box with the cover applied thereto, and

Fig. 4 is a view of one end portion of the blank from which the cover is made.

The paper receptacle forming the subject-matter of this invention includes a box or body portion which is preferably formed of cardboard and a cover which is also preferably formed of cardboard and adapted to close the open upper end of the box. The box is provided with a bottom 1 and side and end walls 2 and 3 which project upwardly from the bottom and at their upper ends carry locking tongues 4 and 5. The tongues 4 and 5 are formed integral with the side and end walls but are of less length than their upper edges, as shown in Fig. 1, and bent downwardly so that they extend in depending and diverging relation to the outer faces of the walls. The cardboard has sufficient resiliency to allow the tongues to be forced towards the walls and cause them to spring outwardly towards their original positions when relieved from the pressure.

The cover is formed from a cardboard blank having a body portion 6 which forms the top 7 of the cover and from which extends side and end extensions 8 and 9 constituting the side and end walls 10 and 11 of the cover when folded on the dotted lines 12 and 13. The portions 8 and 9 of the blank are of greater depth than the side and end walls and are intended to be folded along the dotted lines 14 and 15 to form flanges 16 and 17 projecting upwardly from the lower edges of the walls 10 and 11. Tongues 18 extend from the ends of the side walls 10 and are bent along the dotted lines 19 to overlap the inner faces of the walls 11 transversely of the cover and when engaged with the walls 11 are overlapped by tongues or arms 20 which project from the end portions of the flanges 17. Similar tongues 21 extend from the end portions of the flanges 16, and these tongues are secured by fasteners 22. Since the fasteners for the tongues 20 also pass through the tongues 18, the side and end walls of the cover will be firmly secured and the corner portions of the cover greatly strengthened. It should also be noted that portions of the flanges 16 and 17 extend outwardly from the inner faces of the walls 10 and 11 between the tongue extensions at their ends and define pockets 23 and 24 adapted to receive the tongues 4 and 5 of the box.

When the cover is applied to the box, the flanges 16 and 17 will engage the locking tongues 4 and 5 and force the tongues towards the walls of the box. As soon as the flanges move downwardly out of engagement with the locking tongues, pressure upon the tongues will be removed and they will spring outwardly and engage the inner faces of the walls 10 and 11, as shown in Fig. 3. Referring to this figure, it will be seen that, when the cover is applied, the locking tongues are disposed above the pockets so that if it is attempted to remove the cover the tongues will pass into the pockets and prevent easy removal thereof. If the box is empty, the side and end walls thereof may be forced inwardly a sufficient distance to temporarily move the locking tongues out of position to enter the pockets and the cover may be easily removed. When, however, the box is filled, inward movement of its wall will be prevented and the cover cannot be removed without the tongues catching in the pockets.

It is then necessary to exert force enough to either bend the tongues 4 and 5 upwardly or tear the pocket-forming portions of the flanges loose from their end tongues in order to remove the cover. It will, therefore, be seen that the cover is not liable to be accidentally disconnected from the box and also that a cover cannot be readily removed and the contents of the box tampered with without the fact that the box has been opened being indicated by the condition of its pockets or locking tongues.

Having thus described the invention, I claim:

1. A receptacle having a bottom and walls, yieldable locking tongues extending downwardly and outwardly from the walls and terminating with their ends in spaced relation to the side faces of the walls, a cover for said receptacle removably fitted thereon and having depending marginal walls overlapping the walls of the receptacle, and tongues extending upwardly from the walls of said cover and having their end portions secured against the inner faces thereof and their intermediate portions extending in spaced relation thereto to form pockets adapted to receive the tongues of said recepacle and lock the cover upon the receptacle.

2. A receptacle having a bottom and walls, yieldable locking tongues extending downwardly and outwardly from the walls and terminating with their ends in spaced relation to the side faces of the walls, a cover for said receptacle removably fitted thereon and having depending marginal walls overlapping the walls of the receptacle, and tongues extending upwardly from the walls of said cover and having their intermediate portions extending in spaced relation to the inner faces thereof to provide pockets to receive said locking tongues and their end portions extended towards the top of the cover and firmly secured against the inner faces of the cover walls.

3. A receptacle having a bottom and walls, yieldable locking tongues extending downwardly and outwardly from the walls and terminating with their ends in spaced relation to the side edges of the walls, a cover for said receptacle removably fitted thereon and having a top and depending side and end walls, said side walls having extended end portions forming tongues folded against the inner faces of said end walls, the lower portions of the walls of said cover being folded inwardly with their intermediate portions extending in diverging relation to the wall to provide pockets to receive the tongues of said receptacle when the cover is in place upon the receptacle, arms extending from the end portions of the inwardly folded portions of the side walls and secured against the inner faces thereof, and arms extending from the end portions of the inwardly folded portions of the end walls and secured in overlapping relation to the tongues of the side walls.

4. A receptacle comprising companion body and cover members each having marginal walls, yieldable locking tongues extending divergently from the walls of one member and terminating in spaced relation to the side faces of its walls, and tongues extending from the walls of the other member with their end portions secured in face to face contact therewith and their intermediate portions extending in spaced relation to its walls to form pockets adapted to receive the locking tongues of the first member and lock the cover members upon the body member.

In testimony whereof I affix my signature.

CHARLES M. SMITH. [L. S.]