

R. C. McCONACHY.
RECEPTACLE.
APPLICATION FILED JULY 25, 1913.

1,158,520.

Patented Nov. 2, 1915.

Fig. 1.

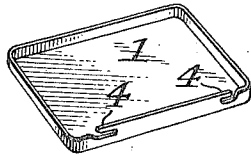


Fig. 3.

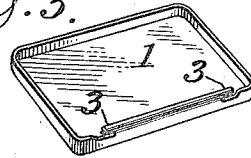


Fig. 4.

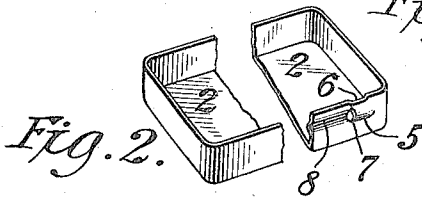


Fig. 5.

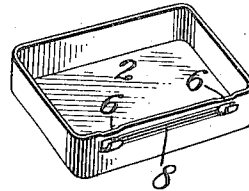


Fig. 6.

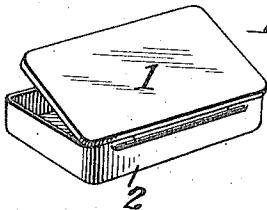


Fig. 7.

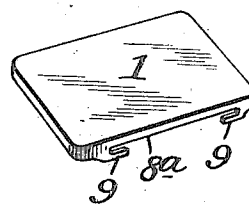


Fig. 9.

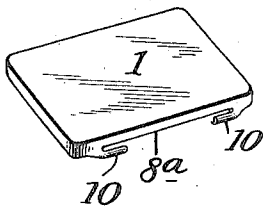


Fig. 8.

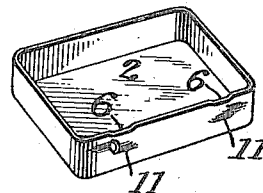
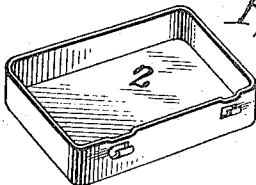


Fig. 10.



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UNITED STATES PATENT OFFICE.

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RECEPTACLE.

1,158,520.

Specification of Letters Patent.

Patented Nov. 2, 1915.

Original application filed November 19, 1912, Serial No. 732,210. Divided and this application filed July 25, 1913. Serial No. 781,048.

To all whom it may concern:

Be it known that I, ROBERT CHARLES McCONACHY, a subject of the King of Great Britain, residing in South Yarra, State of Victoria, Commonwealth of Australia, have invented new and useful Improvements in Receptacles, of which the following is a specification.

This invention relates to small covered receptacles of sheet metal, and relates particularly to means to hingedly connect the cover or lid and receptacle proper.

In the manufacture of small covered receptacles of sheet metal, it is customary to hingedly secure the lid or cover thereto by passing short pieces of wire through folded portions of the lids and inserting the ends of the wire beneath raised portions of the back walls of the receptacles. The insertion of the wire to form a hinge is now ordinarily done by hand and is an operation necessitating considerable care and skill to perform quickly and satisfactorily.

It is the object of the present invention to overcome the above disadvantages and to provide a simple form of hinge which is formed or "worked up" wholly out of the material of the lid and receptacle.

The present application is a division of my application filed November 19, 1912, Serial No. 732,210, disclosing the process, and apparatus either manually or automatically operated for carrying out the same, to prepare and hingedly connect the two parts of a receptacle in a simple and efficient manner.

In the drawing accompanying and forming a part of this specification, Figures 1 to 6, inclusive, are views in perspective of a sheet metal receptacle and a lid embodying my invention, showing the various stages through which they pass to hingedly connect one with the other according to the present invention; and Figs. 7 to 10, inclusive, are similar views illustrating a modification in the formation of the hinge.

Similar characters of reference designate like parts throughout the different views of the drawing.

In the embodiment of my invention illustrated in Figs. 1 to 6 of the drawing, the lid or cover 1 is first struck or drawn up from a blank sheet to the form shown in Fig. 1 with the back of the lid of greater depth than the ends and shaped somewhat in the form of an inverted letter T to form

projecting parts or lugs 4. The lugs are laterally projecting parts 4 of the T-shaped portion of the lid 1, and the metal lying therebetween is pressed or folded by means of dies or the like, (as disclosed in my co-pending application hereinbefore referred to) into circular or semi-circular shape as shown in Fig. 3 to form pintles or hinge pins 3 upon which the lid may easily pivot or swing when fitted in approved bearings formed on the receptacle. The receptacle proper 2 is also first struck or drawn up from a sheet blank as shown in Fig. 2, when the vertical wall constituting the back of the receptacle is provided with bulbs 5, (Fig. 4) to form bearings for the pintles 3. These bulbs 5 are the same distance apart as the pintles or hinge pins 3 and are formed by dies or other approved means, as for instance, the apparatus disclosed in my co-pending application hereinbefore referred to. In forming the bulbs 5 the metal is stretched from the points marked 6, see Fig. 4, and at the same time vertical incisions 7 are made in the back of the receptacle at the inner ends of the bulbs. Moreover, the dies employed to make the bulbs 5 can be shaped to form a horizontal recess or depression 8 between the said bulb, as shown, and this recess is intended to permit of the lid being operated freely when fitted to the receptacle. In an after operation an incision is made along the top and down the outer ends of the bulbs 5 to permit of the metal forming the latter being raised or pressed outwardly in the form of tongues (Fig. 5) sufficiently far to enable the pintles or hinge-pins 3 to be passed therebeneath. When the lid 1 and receptacle 2 are brought together in this way the bulb portions are pressed back to their original positions and fit neatly around the pintles or hinge-pins 3 thus hingedly connecting the two parts in an extremely efficient manner.

In the modification illustrated in Figs. 7 to 10 of the drawings a T-shaped recess 8^a is cut in the back of the lid 1 to form inwardly projecting lugs 9 near the ends thereof, see Fig. 7. These lugs 9 are bent or folded into semi-circular or circular form, as shown in Fig. 9, to make pintles 10 which are adapted to be passed beneath the raised bulbs 11 formed on the back of the receptacle 2 and oppositely to those previously described. The bulb portions are pressed

neatly around the pintles 10 to securely fasten the lid 1 to the receptacle 2 in the manner hereinbefore described.

A hinge constructed as described will be strong, free in operation and will be very economical to manufacture.

I wish it particularly to be understood that although the process of bulbing prior to pressing out portions of the back of the receptacle is preferable it is by no means essential to the successful performance of the invention as a strong and serviceable hinge could be formed simply by pressing part of the body outwardly and folding it around the pintles or hinge-pins on the lid. The advantage obtained by first bulbing the back of the receptacle is that when the metal is pressed back to its original position it will neatly surround the hinge-pins 3 and the edges formed by the incisions will be brought into contiguity and not be at some distance apart as would otherwise be the case.

It will be obvious from the foregoing description that the salient feature in the construction of the hinge is the formation of the pintles or hinge pins integrally with the lid substantially as hereinbefore described.

It will be readily apparent to those skilled in the art to which the invention relates that the form of hinge herein described can be readily employed to connect lids to receptacles of various shapes other than the rec-

tangular type shown and which has simply been adapted to facilitate a clear understanding of the invention.

Having thus described my invention I claim:

1. A covered receptacle comprising in combination a cover having tubular rolled portions at one edge thereof to form hinge pins, and a receptacle proper having tongues stamped out of the back adapted to receive and be closed over the hinge pins of the cover, substantially as and for the purpose specified.

2. In a covered receptacle the combination of a receptacle proper having tongues stamped out from the back with a depression extending between said tongues, and a lid for the receptacle having a flange formed with an integral tubular portion at one end with portions of said flange cut away adjacent the ends of the tubular portion to form hinge pins, said pins adapted to engage the tongues with the intermediate tubular portion between the ends engaging in the recess portion extending between the tongues, and said tongues adapted to be closed over the hinge pins to form bearings therefor, substantially as and for the purpose specified.

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