March 13, 1934. C. H. WHITLOCK 1,950,465

HINGED RECEPTACLE

Filed May 12, 1933

Fig. 1

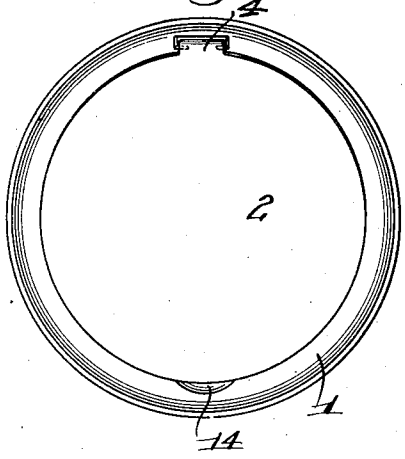



Fig. 5

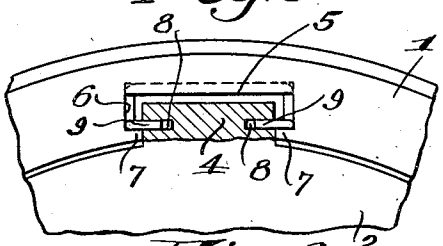



Fig. 6

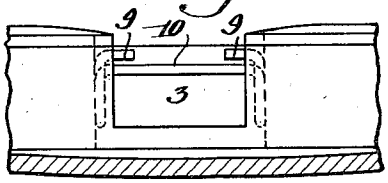



Fig. 7

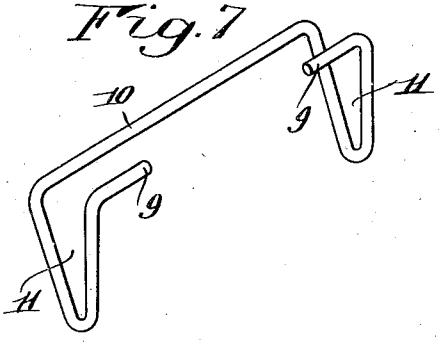



Fig. 2

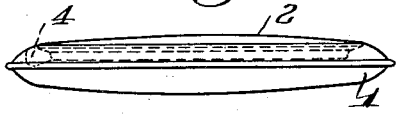



Fig. 3

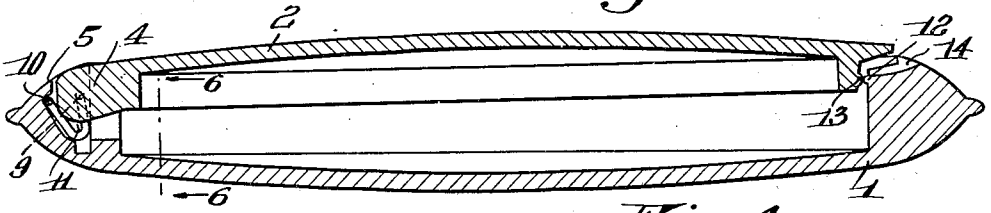
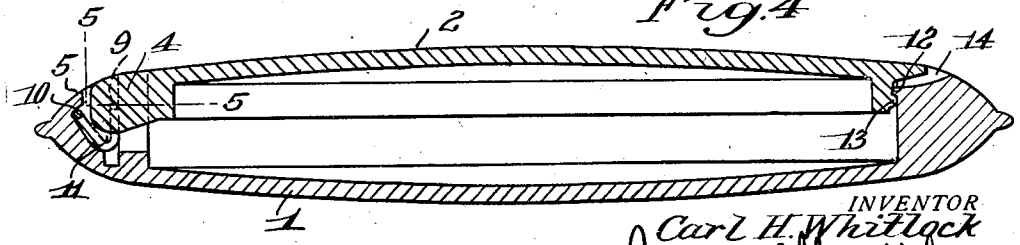



Fig. 4

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# UNITED STATES PATENT OFFICE

1,950,465

## HINGED RECEPTACLE

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Application May 12, 1933, Serial No. 670,760

7 Claims. (Cl. 220—31)

My present invention relates to receptacles and more particularly to hinge connections therefor as between the body and the cover thereof, and it has for its object to provide a simple, easily assembled and efficient hinge of this character that may be produced at low cost. The improvements are directed in part to arrangements whereby the elements may be assembled practically without the use of tools and securely interlock with one another; toward embodying in the hinge connection a resiliency potential that causes it to also perform the function of holding in engagement a snap fastener or catch for the hinged parts, and toward rendering the structure generally particularly available for use in the making of molded articles.

To these and other ends, the invention resides in certain improvements and combinations of parts, all as will be hereinafter more fully described, the novel features being pointed out in the claims at the end of this specification.

In the drawing:

Fig. 1 is a top plan view of a small container, such as a compact or vanity case, constructed in accordance with and illustrating one embodiment of my invention;

Fig. 2 is a side view thereof;

Fig. 3 is a longitudinal central section taken from front to rear through both the hinge and the snap fastener, greatly enlarged, and showing the positions of the parts just before the fastener is engaged;

Fig. 4 is a similar view showing the fastener engaged;

Fig. 5 is a fragmentary section through the spring pintle, taken substantially on the line 5—5 of Fig. 4, surrounding parts being in top plan;

Fig. 6 is a front elevation of the pintle connection with the cover removed and the body shown in fragmentary section on the line 6—6 of Fig. 3, and

Fig. 7 is a further enlarged perspective view of the pintle element.

Similar reference numerals throughout the several views indicate the same parts.

As before indicated, I have chosen to illustrate an embodiment of my invention in which the improvements are applied to the type of flat locket-like containers, which is commonly used for powder compacts and other cosmetics. They may be made cheaply and satisfactorily of molded material, such as celluloid and the synthetic condensation products, and so shaped as to lend themselves with particular facility to my mode of assembly.

Referring more particularly to the drawing, 1 indicates the body of such a container and 2 the inset or flush cover or lid thereof, the two parts having complementary flanges, as shown. In the wall of the body at the rear is a cavity 3 open at the top and front or inner surface to accommodate a lug 4 on the cover constituting a hinge knuckle projecting therein. There is an overhanging ledge or shoulder 5 at the rear and top of the cavity while the latter is extended at its ends or lateral portions in the form of V-shaped pockets 6 converging downwardly and generating forward shoulders 7.

The ends of the knuckle 4 are bored at 8 to receive the hinge pintles 9 which are constituted by the inwardly turned alined extremities of a wire bail or yoke, the intermediate connecting body portion of which is indicated at 10. This element is of spring wire, the body portion being horizontal and parallel with the pintles 9 and the wire being bent into a V-shape at 11 between the body portion and such pintle tips, as clearly shown in Fig. 7.

The body and lid of the receptacle having been separately molded in the forms described, the device is assembled by springing the pintles 9 into the knuckle bores 8, momentarily compressing the bail piece endwise to allow it to pass between the shoulder 7 and thrusting it and the knuckle 4 into the cavity 3. In so doing, the body or connecting portion 10 engages beneath overhanging shoulder 5 while the V-portions 11 at the ends expand and spring into the pockets 6 which lock them against withdrawal forwardly. The said shoulder 5 locks the wire against escape upwardly and thus the interlocking becomes complete on the only two sides where the cavity is open. In the normal closed position of Fig. 4, the V-ends 11 substantially hug the similarly shaped pockets 6.

To hold the cover closed, a snap fastening is provided at the forward portions of the two hinged elements, which fastening comprises, in the present instance, a small rib or keeper 12 on the inner side of the rim of the body 1 and a corresponding latch shoulder 13 at the same point on the lid, adjacent to the former of which is the usual depression or cut-away portion 14 for the thumb nail of the user in opening the device. The pintle wire 9—10—11 is also utilized as a spring for keeping the shoulders of the fastener engaged because, as shown in Fig. 3, as the fastening element 13 is pressed past the keeper shoulder 12, the pintles

9, because of the V-shaped bends 11, yield rearwardly and then thrust the parts or, rather, the lid 2 forwardly to maintain the fastener engaged, all of which does not disturb the secure engagement of the bail 10 with shoulder 5.

The knuckle 4 on the lid fits closely between the shoulder 7 so that axial movement on the pintles is not permitted. During the assembly above described, the said knuckle carrying the wire is preferably inserted in the cavity while the body and lid are in open relationship, that is, in a direction downwardly into the cavity.

I claim as my invention:

1. In a receptacle, comprising a body and a cover therefor, one of said members being provided with a cavity having an interlocking shoulder, and the other with a knuckle extending into the cavity, of an integral wire bail having its intermediate portion locked by the shoulder within the cavity and its ends turned inwardly and providing pintle bearings for the knuckle.

2. In a receptacle, comprising a body and a cover therefor, one of said members being provided with a cavity having an interlocking shoulder formed by an overhanging ledge at the rear thereof and the other with a knuckle extending into the cavity, of an integral wire bail having its intermediate portion locked beneath the shoulder within the cavity and its ends turned inwardly and providing pintle bearings for the knuckle.

3. In a receptacle, comprising a body and a cover therefor, one of said members being provided with a cavity having an interlocking shoulder formed by an overhanging ledge at the rear thereof and the other with a knuckle extending into the cavity, the ends of the latter being provided with V-shaped pockets, of an integral wire bail having its intermediate portion locked beneath the shoulder within the cavity and its ends turned downwardly and thence upwardly to hug the respective pockets and thence inwardly toward each other providing pintle bearings.

4. In a receptacle, the combination of parts as recited in claim 2 further characterized by the provision of cooperating snap fastening elements on the forward portions of the body and cover, respectively, yieldingly held in engagement by the resiliency of the wire bail.

5. In a receptacle, the combination of parts as recited in claim 3 further characterized by the provision of cooperating snap fastening elements on the forward portions of the body and cover, respectively, yieldingly held in engagement by the resiliency of the wire bail.

6. In a receptacle, the combination with a body and a cover therefor having cooperating snap fastening elements on the forward portions thereof, of a floating spring pintle hingedly connecting the rear portions thereof to yieldingly hold the fastening elements in engagement and embodying a wire having an intermediate portion anchored in one element and swinging end portions having bearings in the other.

7. In a receptacle, the combination with a body and a cover therefor having cooperating snap fastening elements on the forward portions thereof, one of said elements being provided with a rearward cavity and the other with a hinge knuckle occupying the same, of a spring pintle hingedly connecting the elements with its ends bearing in the knuckle and its body portion resiliently interlocked with the cavity so that it may be assembled upon the knuckle and inserted in the cavity therewith.

CARL H. WHITLOCK.