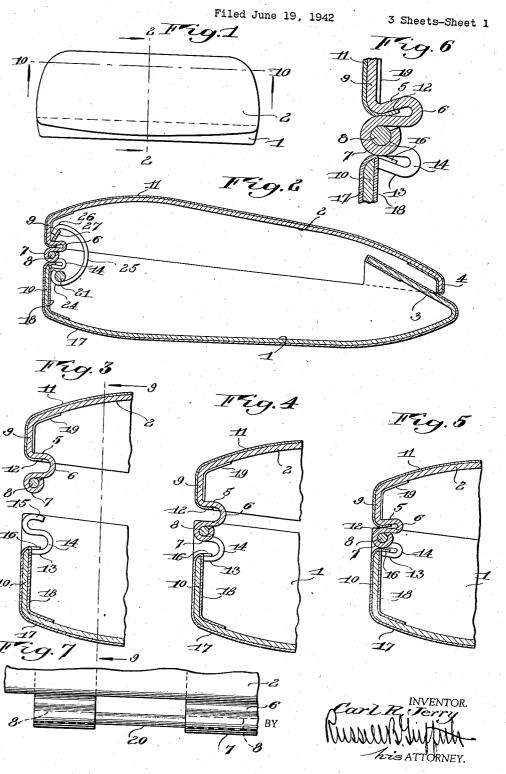
SPECTACLE CASE



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Filed June 19, 1942

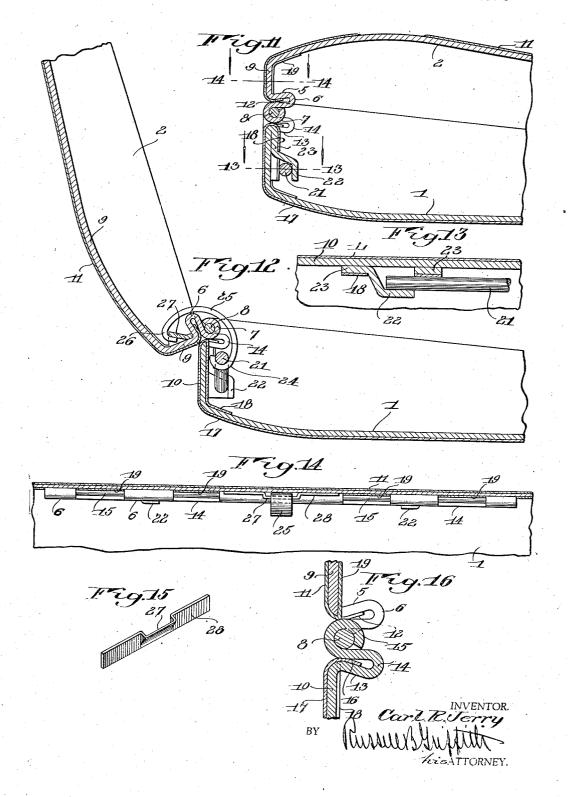
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UNITED STATES PATENT OFFICE

2,376,487

SPECTACLE CASE

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Application June 19, 1942, Serial No. 447,695

5 Claims. (Cl. 220-31)

My present invention relates to special receptacles and more particularly to eye glass cases the same being box-like containers commonly used for holding ophthalmic mountings. The invention concerns such a construction of eye glass or spectacle cases in which, as a product, the case will be neat and attractive and can be assembled easily at relatively low manufacturing cost. The improvements relate primarily to the association of a body portion with a hinged lid so articulated 10 thereon that the combination of the two parts will provide a smooth and uninterrupted hinge line on the exterior and corresponding facilities on the interior.

Heretofore the problem in the manufacture of 15 special receptacles of this kind has involved the consideration of working into the hinge line of the spectacle case the leather, imitation leather, or other coverings commonly used on the exterior to prevent the raw edges thereof from being obviously present or requiring special measures for their anchorage on the interior. With the present invention, the two elements of a hinge combination on a body or container and the articulated lid therefor is so effected that the covering material is hidden in the hinge and the stated smooth exterior at the hinge portion is preserved.

To these and other ends, the invention resides in certain improvements and combination 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 drawings:

Figure 1 is a top plan view of a spectacle case one embodiment of my invention;

Figure 2 is a much enlarged transverse section thereof taken on the line 2-2 of Figure 1, the same showing the complete assembly;

Figure 3 is a collective view of the body portion and the lid in assembling positions but prior to assembly;

Figure 4 is a similar view on the same section line with the body and lid associated with each other but only partially assembled;

Figure 5 is a similar view on the same section line with the assembly completed;

Figure 6 is a further enlarged detail fragmentary section constituting an enlargement of a section appearing in Figure 2;

Figure 7 is a fragmentary bottom view of the pintle as appearing in the upper portion of Fig-

Figure 8 is an enlarged view showing the hinge line of the case in rear elevation;

Figure 9 is a longitudinal section on line 9-9 of Figure 3 looking in the direction of the arrows toward the hinge;

Figure 10 is a similar section of the complete assembly including the actuating spring and taken on the line 10-10 of Figure 1;

Figure 11 is a further enlarged section taken

on the line | | - | | of Figure 10;

Figure 12 is a section taken on the line 12-12 of Figure 10 but with the lid of the case raised or in open position;

Figure 13 is a further enlarged detail fragmentary horizontal section taken substantially on the line 13-13 of Figure 11;

Figure 14 is a detail fragmentary horizontal section taken on the line 14-14 of Figure 11;

Figure 15 is a perspective view of the bracket for the anchorage of one end of the actuating spring clip; and

Figure 16 is a further enlarged section taken substantially on the line 16—16 of Figure 10. Similar reference numerals throughout the

several views indicate the same parts.

To first give a general idea of what I accom-25 plish with this invention, the spectacle or similar case comprises a body portion and an articulated lid both stamped out of sheet metal. The hinge line is at the rear and a problem resides in so constructing this hinge that it will have a neat 30 appearance on the exterior, can be rapidly assembled in connection with an actuating spring to hold the lid in either open or closed position and yet will in general avoid the provision of fastening means or parts projecting inside the constructed in accordance with and illustrating 35 case. Such spectacle cases are usually produced with a leather, fabric, or similar covering and another consideration involved in my present invention is combining the rear raw edges of these coverings on both the body and lid so that they 40 not only are concealed at the hinge line but are secured or clamped in and by the hinge assembly itself. In other words, in the practice of my invention; the body portion and the lid portion of the spectacle case are first produced with this covering material or outer lamination attached, they are then assembled in this condition and, finally, such hinge connection is completed and the before mentioned actuating spring added. But all of these operations are conducted in a way that does not lead to the covering or finishing material being scratched or marred by the assembly tools and the assembly operations.

Referring more particularly to the drawings, indicates generally the sheet metal body and 2 55 the sheet metal lid of a spectacle case of the usual or any desired contour. At the front side the body has a reentrant lip 3 over which the bent down forward edge 4 of the lid engages. In general, the case assumes the closed position of Figure 2 or the open position of Figure 12 in 5 either of which it is selectively held by the actuating spring arrangements hereinafter described.

Referring momentarily more particularly to Figure 3, the rear edge of lid 2 is divided into a 10 plurality of projecting tongues 5 of a generally S shape, that is, they each proceed forwardly and inwardly of the case in a loop 6, thence rearwardly and forwardly again to form another loop 7 and the latter is initially clamped tightly about 15 and confines a straight pintle 8. But neither the loop nor hence the pintle projects rearwardly beyond the plane of the rear wall 9 of the lid and the rear wall 10 of the body portion 1.

When the lid 2 is so assembled with the pintle 20 8, the loops 6 of the tongues being still open as in Figure 3, the leather, fabric, or other similar finishing covering II is applied and certain portions 12 of the raw edge at the rear are brought well into loops 6. At the same time body portion 25 is similarly prepared. It also has S shaped tongues 13 looped forwardly at 14 and thence rearwardly at 15, the latter loop being temporarily left open. These tongues 13, as appears from Figures 7, 8, 9 and 10, alternate with the tongues 5 on the lid as in any piano type hinge

of this general nature.

Still referring principally to Figure 3 and also to Figure 9, certain portions 16 of the raw edge of the covering 17 of the body portion I extend into the loops 14 while the intervening portions 18 are cut to extend down onto the interior of wall 10. In the same way it should have been said of the intervening portions 19 of the covering 11 of lid 2 that they are interspaced between the tongues 5 and extend up onto the interior of wall 9 of the lid. By this I mean, that the coverings 11 and 17 are cut at their rear raw edges with a profile outline producing alternated long and short tongues. The long tongues 19 of the covering 11 and 18 of the covering 17 are the ones that pass into the case between the metal hinge knuckles, the offset of the pintle best shown in Figure 9 giving plenty of room for the accomplishment of this, whereas the short tongues 12 of the covering 11 and 16 of the covering 17 are the ones that are concealed within the cavities provided by the loops 6 and 14. Otherwise and customarily such tongues have to pass clear around the pintle so that they contribute an extra thickness to interfere with the hinge action as well as being subject to that much more wear and dislocation. In other words, these raw edges are taken care of alternately in concealed cavities at the bases of the sheet metal knuckles and 60 within the case. Thus, assuming that the covering is leather, there is no contact of leather against leather. If there be any contact, it is leather against metal. It is now to be understood that generally and usually these coverings 65 11 and 17 are cemented in place.

When the parts have been so constructed as in Figure 3, they are brought together as shown in Figure 4, that is, the loops 15 of tongues 13 on the body are hooked over the exposed portions 20 (Figure 7) of the pintle. Thereupon, with suitable dies or tools, the partially open lid tongues 5 and the entirely open body tongues 13 are compressed so that the loops 15 of the latter are closed about the pintle 8 and the loops 6 and 14 75 the free pintle portions 20, so that the hinge ac-

of the lid and body portions respectively clamp down upon the tongues 12 and 16 of the covering material. The result is the interlocked structure of Figure 5, comparing which to Figure 4 the theretofore slightly separated body and lid portions I and 2 are seen to be brought into ultimate proper sealing relationship. This crimping or consolidating of the parts is also shown in Figure 2, for instance, and on a larger scale in Figure 6. The result of these operations is that the hinge is permanently closed, the hinge axis is brought into or forwardly of the rear walls of the body portion and the lid, and a smooth or flush rear exterior is produced on the case as a whole.

The mode of constructing and assemblying lends itself to the application of the actuating spring that holds the case securely, selectively, in the customary open or closed positions. Referring, with respect to this feature, more particularly to Figures 10 to 15 inclusive, the spring proper is constituted by a bar or resilient wire 21 located on the wall 10 of the body I and extending generally longitudinally of the pintle 8. Its ends are anchored in angular offsets or pockets 22 formed in tongues 23 brought down from the edge of the rear wall 10 of body 1 in alteration with tongues 13, that is, between two of the tongues 13 of body I where the excess material is not used for the purpose of forming the hinge. Hooked over the center of the spring is a lower lip 24 on a bowed clip 25 that spans the pintle 8 and the hinge connection in general. Its other similar lip 26 is hooked over a ledge portion 27 on a bracket plate 28 spot welded or otherwise secured to the rear wall 9 of lid portion 2. It becomes obvious from a comparison of Figures 2 and 12 of the drawings, for instance, that as the eye glass case is opened and closed the resultant line of force exerted by the spring 21 and the clip 25 (which in itself may also have spring action) passes through the center of the hinge and hence holds the lid and body in either of said positions.

An eye glass case constructed in accordance with my invention may be preliminarily formed and ultimately assembled with ease and precision, thus lending itself to mass production, while at the same time it possesses a neat and attractive appearance from the exterior and is mechanically efficient.

The foregoing description has not taken into consideration the application of the customary velvet or other lining that is applied to the interior. The same has not been illustrated in the drawings because it would unnecessarily complicate the sectional views. Suffice it to say, that this interior covering is applied and cemented as usual, being brought loosely over the hinge spring to entirely hide the same.

The utility of my invention will be appreciated by those skilled in the art who, as in latter day practice, are substituting imitation leather having a fabric base for genuine leather covering for receptacles of this kind. The raw edges of a covering with a fabric base are particularly difficult to hold down where the workings of the hinge joints frequently disturb them. With my invention these shorter tongues 12 and 13 of the raw edges are locked as aforesaid in the S shaped knuckles intervening between the longer covering tongues 18 and 19 which are brought into the interior of the case, the tongues 19 being under 2,376,487

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tion does not subject the covering material to wear.

I claim as my invention:

1. In a hinged spectacle case or the like, embodying a body portion and an articulated lid, the combination with a pintle, of complementary substantially S shaped integral tongues on the rear of the body and lid forming loops opening in opposite directions the terminal portions of which tongues constitute knuckles embracing the pintle 10 and the intermediate loops of which project into the interior of the case leaving the exterior rear

wall of the case substantially flush.

2. In a hinged spectacle case or the like, embodying a body portion and an articulated lid, 15 the combination with a pintle, of complementary substantially S shaped integral tongues on the rear of the body and lid the terminal portions of which constitute knuckles embracing the pintle and the intermediate loops of which project into 20 the interior of the case leaving the exterior rear wall of the case substantially flush, and outer covering material on the body and lid, rear raw edges of which are concealed and clamped within the said intermediate loops of the tongues.

3. In a hinged spectacle case or the like, embodying a body portion and an articulated lid, the combination with a pintle and knuckles on one of said elements embracing said pintle, of substantially 8 shaped integral tongues on the 30

other element the terminal portions of which also constitute knuckles embracing the pintle and the intermediate loops of which project into the interior of the case leaving the exterior rear wall of

the case flush.

4. In a hinged spectacle case or the like, embodying a body portion and an articulated lid, the combination with a pintle and knuckles on one of said elements embracing said pintle, of substantially S shaped tongues on the other element the terminal portions of which also constitute knuckles embracing the pintle and the intermediate loops of which project into the interior of the case leaving the exterior rear wall of the case flush, and outer covering material on the last mentioned element rear raw edges of which are concealed and clamped within the said intermediate loops of the tongues.

5. The combination with a sheet metal spectacle case or the like, embodying an articulated lid and a body portion hinged together by means of a pintle and integral alternately spaced knuckle tongues embracing the pintle and proceeding from the rear walls of said elements, said knuckle tongues having cavities in their bases, of outer covering material on the lid and body portion rear raw edges of which are secured within said

cavities.

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