June 22, 1937. I. ALTER 2,084,757

BAG WITH SPRING CLOSURE

Filed April 18, 1936

Fig. 1.

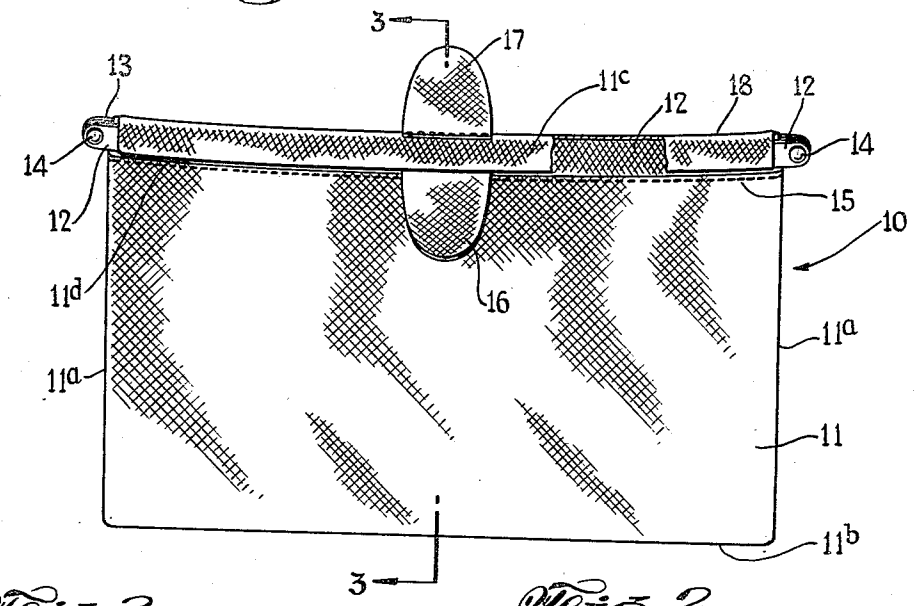


Fig. 3.

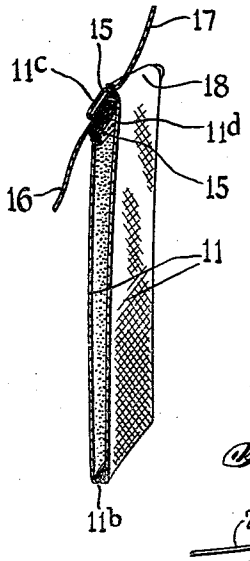


Fig. 2.

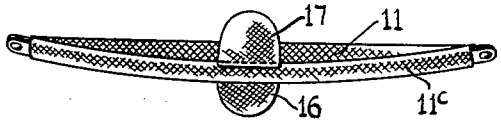


Fig. 4.

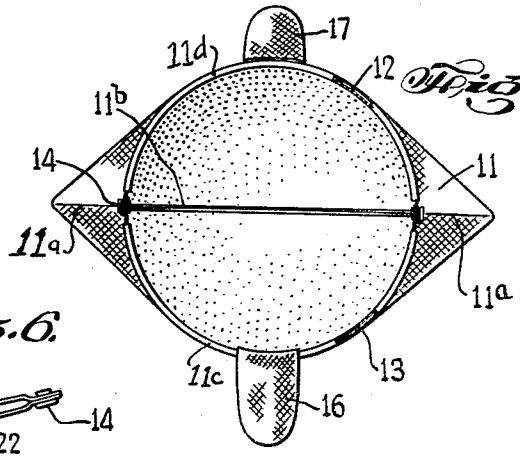


Fig. 6.

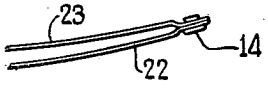


Fig. 5.



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Patented June 22, 1937 2,084,757

UNITED STATES PATENT OFFICE

2,084,757

BAG WITH SPRING CLOSURE

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Application April 18, 1936, Serial No. 75,068

12 Claims. (Cl. 150—10)

This invention relates to spring closure constructions such as incorporated in the openings of bags, purses, pouches and pockets for carrying various articles, as for example, cosmetic appliances, money, smoker's articles, keys and the like.

Among the objects of the invention is to generally improve the construction of spring closures of the character described, and to provide such constructions comprising few and simple parts which shall be easily assembled, relatively inexpensive to manufacture, which shall form neat appearing and conveniently operated structures, which shall be readily opened and closed yet remain in opened or closed position in a positive manner, and which shall be practical and efficient to a high degree in use.

Other objects of this invention will in part be obvious and in part hereinafter pointed out.

This invention accordingly consists in the features of constructions, combinations of elements and arrangement of parts which will be exemplified in the constructions hereinafter described and of which the scope of application will be indicated in the following claims.

In the accompanying drawing in which is shown various possible illustrative embodiments of this invention,

Figure 1 is a front elevational view of a bag or pouch embodying the invention and showing the spring closure in the closed or shut position.

Figure 2 is a top plan view of the improved bag or pouch shown in Figure 1.

Figure 3 is a cross-sectional view taken on line 3—3 in Figure 1.

Figure 4 is a top plan view similar to Figure 2, showing the bag or pouch with the spring closure in open position.

Figure 5 is a top plan view of the spring members removed from their incorporated position in the bag or pouch structure, and

Figure 6 is a fragmentary top plan view of a modified form of the riveted or hinged connections for joining the opposite ends of the spring members.

Referring now in detail to the drawing, 10 denotes a bag or pouch with spring opening and closure means constructed to embody the invention. The bag or pouch 10 may be formed with a body or pocket portion 11 for enclosing cosmetic appliances, smoker's articles, money, keys or other objects such as carried on a person, said body 11 being formed of a suitable textile material, rubber or rubberized cloth, leather or substitutes thereof, or of any moisture-proof sheeting. Said body or pocket portion 11 may be made of tubular material, or of one-piece folded over sheeting, or as shown, of two separate pieces which are sewed or cemented with inturned seams along the opposite side edges 11*a* and bottom edge 11*b* in the well understood manner.

The top opening of the body or pocket portion 11 may be hemmed as at 11*c* and 11*d*, so as to enclose each length of a pair of slightly bowed, flat strip steel spring members 12 and 13. The opposite ends of said members may be secured together by any suitable hinge means, such as rivets 14, there preferably being provided a space between the members 12 and 13 sufficient for the thickness of the material formed by the hems 11*c* and 11*d*. These hems may be secured by cementing or as shown, by stitching 15.

Pull tabs 16 and 17 are provided along the mid-portion of the hems 11*c* and 11*d*, respectively, for serving as finger grips to facilitate opening and closing the bag 10 in the manner hereinafter described.

The utility and operation of the improved bag or pouch 10 will be apparent. After constructing the bag or pouch 10 in the manner described above and shown in Figs. 1 to 5, inclusive, the bowed steel spring member 12 which is a little longer than the bowed member 13 is swung through an arc of 180°, said member being joined by rivets 14, as shown in Fig. 5 and incorporated in the hems 11*c* and 11*d*, respectively. It is seen that the width of said members when in closed or shut position extend parallelly disposed and in angular relation to the plane of the body 11, as shown in Fig. 3. It should be noted that the body 11 is so constructed that the rear side thereof has the hem 11*c* extending therefrom in such a manner that said hem 11*c* overlaps the hem 11*d*, the back side of said body 11 therefore is made slightly longer than the front side thereof, the differences being practically the width of each hem.

From the closed or shut position of the bag or pouch 10, shown in Figs. 1, 2 and 3, said bag 10 may be opened by simply grasping the tabs 16 and 17 between the thumbs and forefingers of the hands of the user and pulling or drawing the same away from each other, the result being the pivoting of the bowed, steel spring members 12 and 13 for completely opening the bag, as is clearly shown in Fig. 4. Since the longer spring member 12 is then bowed in a relatively opposite direction to what it normally is when the closure is shut, the pouch opening takes a circular shape which increases the bowing effect

of the shorter member 13 from its normal, arcuate bowed position, shown in Fig. 5, to a semicircular shaped position, shown in Fig. 4. Said spring members are then bowed in opposite directions and retain this open position since they lie in the same plane and their extreme ends beyond the rivets 14 extend in opposite directions as seen from Fig. 4.

To close the open bag or pouch, the members 12 and 13 are simply swung toward each other and it will be found that as soon as said members are swung a short distance that the cooperative spring action therebetween will automatically act to complete the closure, the hem 11c being brought to overlap the hem 11d. The closure then is not easily opened through accident because of the overlapping of the hems. A top fold 18, formed along the top edge of the closed bag or pouch 10, it should be noted, is thus provided to retain the contents and help form a seal to prevent the passage of the contents between the closure hems 11c and 11d.

In Fig. 6, a modified form of the spring closure means is shown. Here spring members 22 and 23 have their ends slightly offset towards each other so as to space said members along the portion thereof to which the hems 11c and 11d are adapted to be attached, the spacing distance corresponding to the thickness of the material used in making the body 11. These offset portions may be secured together by suitable rivets 14 as shown.

As seen from Fig. 2, the finished bag or pouch 10 may have a curved shape corresponding to the shape of the pocket in the user's apparel when it is found desirable to carry the bag or pouch 10 in such pocket.

It will thus be seen that there is provided a bag, pouch, purse or pocket in which the several objects of this invention are achieved, and which is well adapted to meet the conditions of practical use.

As various possible embodiments might be made of the above invention, and as various changes might be made in the embodiment above set forth, it is to be understood that all matter herein set forth or shown in the accompanying drawing is to be interpreted as illustrative and not in a limiting sense.

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

1. A bag construction of the character described comprising a pocket body portion having a top opening, a pair of spring strip members disposed to extend in parallel relation along the edge of said opening, pivotal means interconnecting end portions of said members to permit one of said members to be swung in and out of said parallel relation with respect to the other member, said pivotal means being so constructed and arranged that the swinging movement of said member serves to resiliently bow both members for shaping said opening into a retained substantially circular form.

2. A bag construction of the character described comprising a pocket body portion having a top opening, hems formed along the edge of said top opening, a pair of parallelly aligned spring strips extending through said hems and normally positioned in overlying relation to hold said hems in abutment for closing said opening, pivotal means extending at right angles of said strips interconnecting the adjacent end portion thereof, said strips being swingable out of said alignment on said pivotal means for resiliently bowing both strips, one strip being bowed into a retained shape in a relatively opposite direction with respect to the bowing of the other strip.

3. A bag construction of the character described comprising a pocket body portion having a top opening, hems formed along the edge of said top opening, a pair of spring members of unequal length normally positioned with a curved set shape and having offset ends for spacing said members apart, the unoffset portions of said members extending through said hems for bringing the latter in abutment to close said opening, pivotal means extending at right angles to said members for securing the opposite end portions thereof, each of said members being swingably mounted with respect to the other on said pivotal means, said members being movable out of said normal position for resiliently bowing each of said members in opposite direction to retain said hems separated.

4. The bag construction defined in claim 2 having means carried by said hems for opening and shutting said spring closure means.

5. The bag construction defined in claim 3, in which finger gripping tabs extend from the mid-portions of said hems for applying a pulling force on each tab in relatively opposite directions for opening said closure means.

6. A bag construction of the character described comprising a pocket body having a top closure, a pair of spring members secured to the edge of said closure, spaced pivotal means on opposite ends of said members, said members being swingably mounted with respect to each other on said means for bowing said members when in an open position, portions of said members adjacent said pivotal means coacting to serve as means for retaining the bowed members in said open position.

7. A bag construction of the character described comprising a bag body having a top opening, a pair of elongated spring members secured to the edge of said opening and normally positioned with a part of said edge overlying another part thereof to serve as a closure for said opening, pivotal means securing opposite end portions of said members, said members with the overlying edge parts being swingably mounted with respect to each other on said means for movement out of said normal position effective to resiliently bow said members, said means extending at right angles to said members and located to retain the bowed members separated.

8. In a spring closure construction of the character described, a pair of spring members having means at their opposite ends permanently and pivotally attaching said ends together, said springs normally being substantially straight, said members being so constructed and arranged with one of said members pivotally mounted for movement in and out of the plane of the other member, said member when pivoted out of said normal straight position being bowed, and coacting means formed with the ends of said members to provide a se[illegible] retained substantially circular shaped structure when said members are bowed.

9. In a spring closure construction of the character described, a pair of spring strip members disposed to extend in parallel relation, pivotal means permanently interconnecting the ends of said members to permit one of said members to be swung in and out of said parallel relation with respect to the other member, and means to retain said members in substantial circular shape,

said means formed by the coaction of said spring members and pivotal means so constructed and arranged that the swung position of said member out of parallel relation resiliently bows both members into said retained substantially circular shape.

10. In a spring closure construction of the character described, a pair of spring strips normally positioned in closely spaced relation, means carried by said strips inwardly from the opposite ends thereof for permanently pivotally securing said strips together, each of said strips being swingably mounted with respect to each other, and means to retain said strips in a retained shape when said strips are moved out of said normal position, the ends of one of said strips being so constructed and arranged to resiliently bow said strips into said retained shape when moved out of the normal position.

11. In a spring closure construction of the character described, a pair of parallelly aligned spring strips having offset terminal portions for spacing said strips apart, pivotal means securing the offset portions inwardly from the ends thereof, each of said strips being swingably mounted with respect to the other on the pivotal means, and means on said strips for resiliently bowing the latter in opposite directions when moved out of said alignment.

12. In a spring closure construction of the character described, a pair of spring members of unequal length normally assuming a curved shape in closely spaced parallel relation with respect to each other, pivotal means interconnecting with adjacent portions of said members inwardly from the ends thereof, said members being so constructed and arranged with one of said members swingably mounted on said means for movement out of said normal position to cause the ends of one of said strips to bear on the other for resiliently bowing into a retained shape the other of said members in a relatively opposite direction with respect to bowing of the first member.

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