

G. H. CLIFF.
SNAP FASTENER.

APPLICATION FILED AUG. 16, 1911.

1,059,979.

Patented Apr. 29, 1913.

FIG. 1.

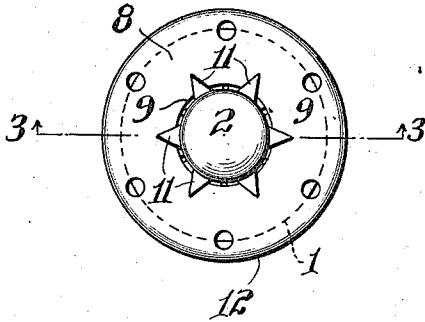


FIG. 2.

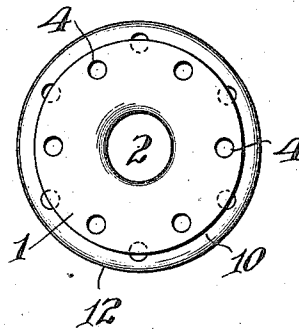


FIG. 3.

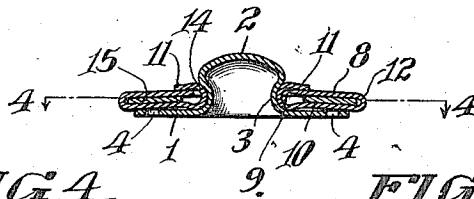


FIG. 4.

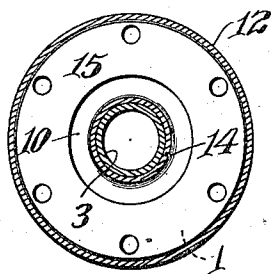
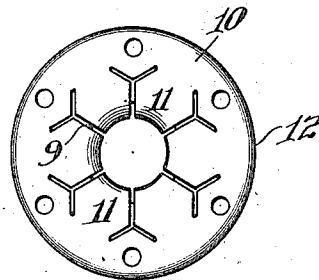


FIG. 5.



WITNESSES

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GEORGE H. CLIFF, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THE DE LONG
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SNAP-FASTENER.

1,059,979.

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To all whom it may concern:

Be it known that I, GEORGE H. CLIFF, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented new and useful Improvements in Snap-Fasteners, of which the following is a specification.

My invention relates to snap fasteners and its purpose generally is to improve the construction of the socket member of such a fastener.

My invention relates to the socket member of a snap fastener which, in its finished state, consists of two plates integral at their outer edges or otherwise connected and which plates are arranged in parallel relation and in juxtaposition with respect to each other.

My improvement consists in the placing of an annular plate intermediate the opposite sides of a socket member so constructed. If said member is constructed by bending the outer edge portions of a metallic plate laterally and inwardly into parallel relation to the central body portion thereof, the said annular plate is situated between the said body or central portion and the said overturned outer edge portion. One of the objects of placing the annular washer-like member between the opposite sides of the said socket member is to prevent the possibility of the said sides being pressed or otherwise brought too close together.

A further object of my invention is to increase materially the capacity of the socket member to resist lateral bending, but without increasing the thickness of the said member to such an extent as to destroy its neat appearance and also without destroying the resilience and spring holding action of the same.

Other objects and advantages of my invention will be referred to in the detailed description of my invention or will be apparent therefrom.

In the accompanying drawing I have illustrated one embodiment of my invention but it is to be understood that changes in the forms and shapes of the parts and in other details of construction may be made within the scope of the claims without departing therefrom.

In the drawing,—Figure 1 is a plan view of one side of a socket member showing the ball or stud of a cooperating ball member

projecting through the socket thereof; Fig. 2 is a bottom plan view of the ball member showing the edges of the socket member projecting beyond the edges of the ball member; Fig. 3 is a transverse section on the line 3—3; Fig. 4 is a horizontal section on the line 4—4 of Fig. 3, the ball member being omitted; and Fig. 5 is a plan view of the side of the socket member opposite to that which is shown in Fig. 1.

Having reference to the drawing, 1 designates what may be termed the flange portion of the ball member of a snap fastener, 2 the ball and 3 a neck portion connecting the ball 2 with the flange 1. The part 1 of the said member is provided with holes 4 near its outer edge through which sewing threads are adapted to be passed and connected to a garment or other article for the purpose of securing the said ball member to the same. Other means if desired may be employed for the purpose of securing the said ball member to such garment or other article.

8 designates one side of the socket member of a fastener consisting of the central body portion of a plate and having a socket hole or opening 9 therein. The opposite side of the said plate consists of the annular solid portion 10 and the projecting portions 11. The said side, consisting of the parts 10 and 11, is formed by bending over the outer edge of a plate, the bend being shown at 12 in the drawing. The ends of the projections 11 are bent over and inwardly into close relation with the side 8 of the socket member and extended through the socket hole or opening 9 and are bent around the edge of the said hole or opening to infold portions thereof as indicated at 14 in Fig. 3. The inner sides of the bends 14 are spaced from the edge of the opening 9 for the purpose of permitting outwardly yielding movement of the resilient spring acting projections 11 so that the ball or stud member of the fastener may be inserted and withdrawn through the socket of the socket member. The portions of the said bent over ends of the projections upon opposite sides of the side 8 adjacent to the edge of socket opening 9 are spaced therefrom in order that the inner ends of the said spring acting projections 11 may have lateral movement; that is, movement transversely of the plane of the socket member of the fastener

so as to facilitate the insertion and withdrawal of the ball or stud of the ball member from the socket of the said socket member.

5 The annular, flat washer-like plate 15 occupies a position between the opposite sides of the socket member of the fastener and its outer peripheral edge is but slightly less in diameter than the diameter of the periphery
10 of the inside surface of the bend 12 which connects the opposite sides of the said socket member. The width of the said annular part 15, preferably though not necessarily, is such that its inner edge is located some
15 distance from the edge of the socket hole or opening 9 in the side 8 so that provision is made for lateral space between the projections 11 and the side 8 of the socket member between the inner edge of the annular part
20 15 and the edge of the socket hole or opening 9.

By reason of the presence of the annular plate 15 all possibility of pressing or otherwise positioning the opposite sides of the
25 socket member of the fastener into too close relationship with each other is prevented and in all cases the said sides occupy the same relationship to each other. By this means the resiliency and the spring holding
30 action of all sockets is uniform.

The ball or stud of the ball member may be inserted through the socket from either side of the socket member.

35 For the purpose of connecting the socket member of the fastener to a garment or other article I have provided thread holes near its outer edge through which sewing threads will be connected to such garment or
40 other article in other manner. However, if desired other means may be employed for connecting the socket members to garments

or other articles to which it is desired to attach them.

Having thus described my invention, I claim:—

1. A socket member of a snap fastener consisting of two thicknesses of plate arranged in general parallel and in operative relation with respect to each other and which are connected at their outer edges, one
50 of the said two thicknesses of plate having a central socket opening and the other one of the said two thicknesses of plate having parts projecting through and over the edge
55 of the said central opening and a ring shaped member interposed between the said two thicknesses of plate.

2. A socket member of a snap fastener consisting of a single integral plate having a central opening and also having its outer
60 portions bent over and inwardly into operative relation with its central portion and projections upon the said bent over portions which extend through said opening and are bent over the edges thereof and an annular
55 washer-like plate interposed between the central and bent over portions of the said plate, the diameter of the external periphery of the said annular plate being less than the diameter of the internal periphery of the
70 bend connecting the central and bent over portions of plate and the diameter of the internal periphery of said annular plate being greater than the diameter of the said
75 opening.

In testimony that I claim the foregoing as my invention, I have hereunto signed my name this 15th day of August, A. D. 1911.

GEORGE H. CLIFF.

In the presence of—

GEO. H. WEIDNER,
CARRIE E. KLEINFELDER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."