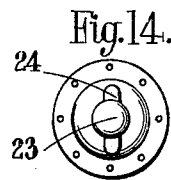
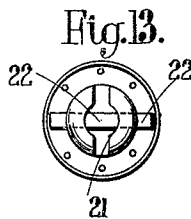
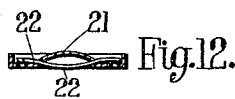
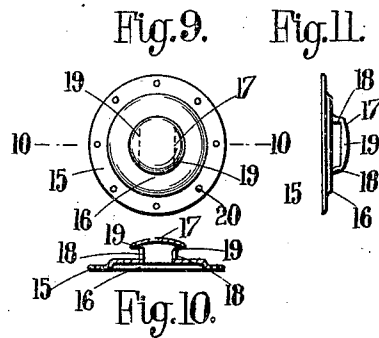
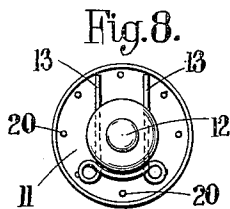
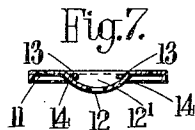
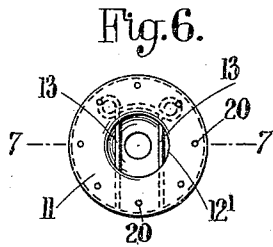
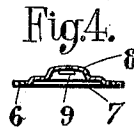
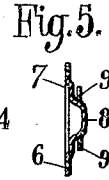
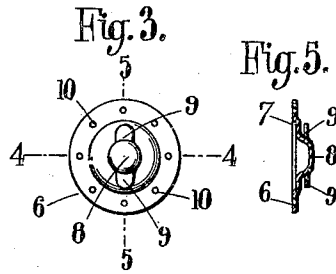
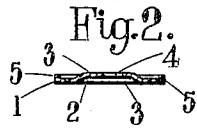
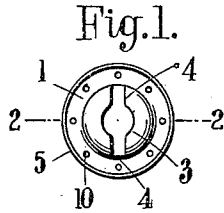


S. OULIANINE.
PRESS BUTTON FASTENING.
APPLICATION FILED FEB. 6, 1919.

1,371,806.

Patented Mar. 15, 1921.



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UNITED STATES PATENT OFFICE.

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PRESS-BUTTON FASTENING.

1,371,806.

Specification of Letters Patent.

Patented Mar. 15, 1921.

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To all whom it may concern:

Be it known that I, SERGE OULIANINE, a subject of the Russian Empire, residing at London, in the county of Middlesex, England, have invented new and useful Improvements Relating to Press-Button Fastenings, of which the following is a specification.

This invention has reference to fastenings for securing apparel and the like in which a hemispherical shaped projection on one part usually of a springy character is adapted for engagement and retained by a correspondingly shaped recess in the other part the parts being brought into engagement by a snap action.

In connection with bi-member fastenings of the kind above referred to when same are employed for securing garments made of material of somewhat flimsy or loose texture it frequently happens that in unfastening the garment the pull necessarily exerted on the fastening for separating the parts thereof entails tearing of the fabric of the garment thereby bringing about its destruction. This result constitutes a strong objection to the use of such fastenings in securing such articles of apparel as ladies' blouses and the like which are frequently made from material such as silk, muslin or similar flimsy fabric. Moreover in some instances the parts of the fastening when same is subjected to tension are apt to be forced asunder, an untidy appearance resulting.

The present invention is therefore designed with the object of avoiding the objectionable results hereinbefore mentioned and to this end it may be said to broadly reside in a construction of fastening whereof the members or parts are adapted for being locked together in such a manner that their disengagement is effected by a turning or angular movement of the one part relatively to the other.

According to this invention the members of the fastening consist of disks or plates having pressed up dome or hemi-spherical shaped central portions. The socket member of the fastening may be formed with oppositely disposed slots or elongations constituting a double key hole opening adapted to receive oppositely formed ears or lugs on the member having the hemispherical or spigot like projection which engages in the said socket member. Thus upon forcing the

spigot member into engagement with the socket member and giving the same an angular movement the ears or lugs are caused to engage with the part of the socket situated between the diametrically opposed slots or elongations. Similarly when unfastening a garment having the improved fastening members applied thereto it is simply necessary to impart a partial turn to either part whereupon the members become separated.

Instead of ears or lugs in the spigot member lateral recesses may be formed on the hemispherical or spigot like projection so that when said projection is pressed into the socket member said recesses engage spring members secured in the sides of the socket. By imparting a partial turn to the one member relatively to the other disengagement is effected as in the previously described arrangement.

In order that the said invention may be readily understood and carried into effect same will now be more fully described with reference to the accompanying drawings in which:

Figure 1 is a plan of the socket member of the fastening according to one embodiment of the invention.

Fig. 2 is a transverse section on the line 2—2 in Fig. 1.

Fig. 3 is a plan of the engaging member having the hemispherical projection.

Fig. 4 is a transverse section of such member the section being taken along the line 4—4 in Fig. 3.

Fig. 5 is a transverse section taken along the line 5—5 in Fig. 3.

Fig. 6 is a plan of the socket member according to a modified construction.

Fig. 7 is a transverse section on the line 7—7 in Fig. 6.

Fig. 8 is a plan of the reverse side of the member shown in Fig. 6.

Fig. 9 is a plan of the engaging member.

Fig. 10 is a transverse section taken along the line 10—10 in Fig. 9.

Fig. 11 is a side elevation corresponding with Fig. 9.

Figs. 12 and 13 are a transverse section and plan respectively of a further modified construction of fastening according to this invention.

Fig. 14 is a plan of the engaging member therefor.

Referring to Figs. 1 and 2 the socket member comprises a disk or plate 1 which is dished or recessed on the under side as at 2 this dished portion being formed with a central aperture 3 and lateral elongations or openings 4. The periphery of the disk or plate is preferably formed with a projecting flange or rim 5. Coöperating with this socket member is a spigot like member shown in Figs. 3, 4 and 5, same comprising a disk or plate 6 whereof the inner portion is dished as at 7 and formed with a dome or hemispherical shaped projection 8. Extending laterally from the projection 8 are diametrically disposed ears or lugs 9. The disks or plates 1 and 6 are each provided with holes or perforations 10 whereby attachment to the apparel by sewing may be effected.

The engagement of the members is effected by inserting the projection 8 into the socket 3 so that the ears or lugs 9 enter the elongated openings 4. Upon giving the member carrying the projection a turning movement through an angle of 90° or thereabout the ears or lugs 9 are brought within or beneath the portions of the plate inclosing the central aperture 3 whereby they are engaged and the respective members of the fastening securely held together.

According to the modification illustrated in Figs. 6 to 11 the socket member is of a springy character and in the arrangement shown consists of a dished disk or plate 11 having a recessed central portion 12 which furnishes a central aperture 12'. This central portion is traversed on either side of the center by a spring member 13 formed of a wire bent approximately U shape the legs or extensions resting in slots or lateral recesses 14 formed by cutting away portions of the opposite sides of the said central portion 12. The spigot-like member for coöperating with this socket member comprises the disk or plate 15 which may be dished as shown at 16 and a dome or hemispherical shape projection 17 whereof the sides are cut away as at 18 so as to reduce the diametral dimension of the projection and constitute retaining shoulders or flanges 19 for engaging the spring members 13 of the socket member of the fastening. Both the disks or plates 11 and 15 are provided with holes or perforations 20 for enabling the same to be attached by sewing to the garment or article.

Engagement of the members is secured by pressing the spigot-like projection 17 into the central aperture 12' so that the retaining shoulders or flanges 19 are housed beneath the springs 13 the release of the members being effected by imparting a partial turn thereto as in the previously described arrangement the full lateral portions of the projection having the effect of forcing the springs 13 asunder.

Referring now to Figs. 12 to 14 the socket member in the construction here illustrated is also of a springy character the spigot-like or engaging member being similar to that employed with the arrangement described with reference to Figs. 1 to 5. The socket member is provided with the double keyhole opening 21 and arranged diametrically across the member is a leaf or blade spring 22 the ends of the spring being passed through slots or openings formed in the dished part of the disk or plate and taking a bearing on the said disk or plate. Upon applying the spigot like member Fig. 14 to the socket member the projection 23 is passed into the central portion of the opening 21 and the ears or lateral projections 24 into the slotted portions of said opening the spring 22 offering a slight resistance to said passage but when the spigot-like member has been turned through a suitable angle the spring acts to retain the parts in locked position. The disengagement of the members is effected by imparting a turning movement as will be understood from the previously described arrangements.

From the above description of the several constructions it will be readily apparent that the members of the fastening when connected or pressed together become locked and that the unlocking can only be effected by turning the members relatively to each other. Thus accidental unfastening so prevalent with the fastenings heretofore employed is avoided the disconnection being only effected when the aforesaid turning movement is imparted to one of the members.

In order to insure complete success with the improved fastening it is only necessary when attaching the members to the parts of the article or apparel to arrange the said members in the relative locking positions so that when the article of apparel is closed or fastened their unlocking or disengagement cannot take place without a turning movement through an angle of 90° or thereabout being imparted to one of them.

I claim:

1. A two part fastener comprising one part in the form of a plate having an annular flange and a central dome-shaped depression forming a central recess on one side and with the flange forming an annular recess on the other side; a spring mounted in the annular recess and having a pair of legs extending through apertures in the depression across the central recess at opposite sides thereof; and a counter-part in the form of a plate having a central dome-shaped projection to match the depression in the first named part, said projection being adapted to engage the spring legs to move the same outwardly to permit the legs to engage oppositely disposed undercut por-

- tions in the projection and hold the two parts together when the latter have predetermined angular relation to each other, the portions of the projection between the undercut portions being adapted when the parts are rotated relatively to move the spring legs to ineffective position to permit the withdrawal of the projection from the depression.
- 10 2. A two part fastener comprising one part in the form of a plate having an annular flange and a central dome-shaped depression forming a central recessed portion on one side and with the annular flange an annular recessed portion on the other side; 15 a spring mounted in the annular recess and having a curved portion adapted to contact with the dome-shaped depression and two legs adapted to contact with the flange at the opposite side of the annular recess 20 whereby the movement of the spring in the recess is limited, the legs extending through apertures in the dome-shaped portion to normally span the central recess; and a counter-part in the form of a plate having 25 a central dome-shaped projection to match the dome-shaped depression in the first named part, said dome-shaped projection engaging the spring legs when the one part and the counter-part are pressed together 30 and moving said legs outwardly of said central recess, said dome-shaped projection having undercut oppositely disposed notches into which the legs of the spring extends to hold the part and the counter-part together 35 when the latter parts are in predetermined angular relation to one another.
- SERGE OULIANINE.