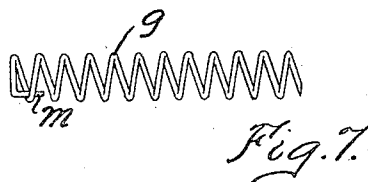
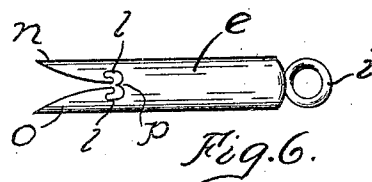
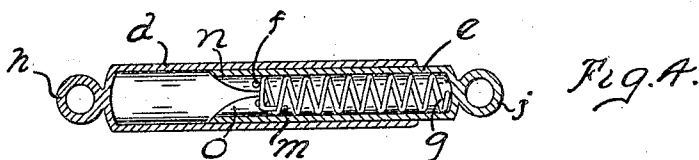
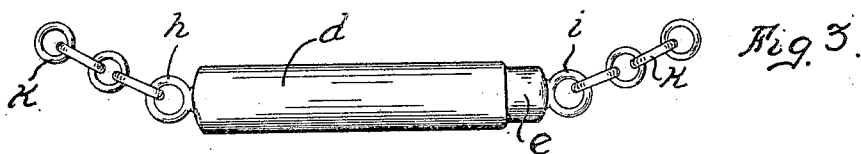
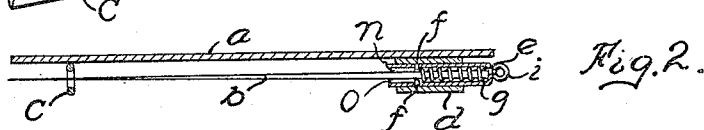
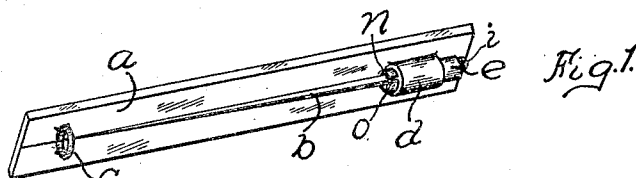


S. A. ASQUITH.
SEPARABLE FASTENER.
APPLICATION FILED AUG. 12, 1908.

940,917.

Patented Nov. 23, 1909.



WITNESSES:

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SEPARABLE FASTENER.

940,917.

Specification of Letters Patent. Patented Nov. 23, 1909.

Application filed August 12, 1908. Serial No. 448,231.

To all whom it may concern:

Be it known that I, STEAD A. ASQUITH, a citizen of the United States of America, and a resident of Waterloo, Blackhawk county, Iowa, have invented certain new and useful Improvements in Separable Fasteners, of which the following is a specification.

My invention relates to improvements in separable fasteners, and is especially useful as a fastening for different articles of jewelry or other objects of a bipartite nature.

The object of the improvements is to perfect such a separable fastener, make it more slightly exteriorly, and to render it in use for coupling and uncoupling more convenient and readily operated. This object I have effected by the means which I have hereinafter fully described and claimed, and which are illustrated in the accompanying drawings, in which:

Figure 1 is a perspective of my invention as applied in use in a brooch. Fig. 2 is a longitudinal central section of said brooch and its separable coupling. Fig. 3 is an exterior view of my separable coupler as connected together and in use for fastening together the ends of a necklace. Fig. 4 is a central longitudinal section of the device shown in Fig. 3. Fig. 5 is a detail view of the receiving or female member of my separable coupling. Fig. 6 is a detail view of the other or received member of the coupling. Fig. 7 is a detail view of the coiled spring as separated from its housing, said received member.

Similar characters refer to similar parts throughout the several views.

My device consists essentially of two principal members, each hollow, cylindrical, and one adapted to slidably receive the other. Each of such members *d* and *e* may have rings at their outer ends at *h* and *i* to be linked respectively with the ends of a necklace *k* as shown in Fig. 3. The receiving member *d* contains nothing but a transverse rod *f*, which extends across its axial line and has its ends secured to the inner surface of said member.

The open end of the member *d* is adapted to slidably or otherwise receive the member *e* of less diameter, which is adapted to have its open end fit within *d*. The open end of the member *e* is modified by being grooved in a peculiar manner, as shown in Fig. 6, whereby two oppositely located tongues *n* and *o* are produced, the groove on each side

being substantially V-shaped, and having at its inner end reëntering continuations oppositely placed and directed or curved reversely toward the ends of said tongues, as shown on each side of *e* at 1—1. The two reëntering portions 1—1 of said grooves are somewhat separated and distinguished by means of a small angular projection *p*, whose use is hereinafter mentioned.

A small coiled compression spring *g* is placed within the hollow of the member *e* and adapted to fit snugly within, but extending from its closed end when uncompressed to the groove between the tongues *n* and *o*, as shown in Fig. 4. The extremity *m* of said spring is bent inwardly under the first adjacent coil thereof, to secure it in place, and to form a buffer of its outer end to contact squarely with the transverse rod *f* when the member *e* is inserted into the receiving or female member *d*. When the member *e* is thus inserted into the hollow of the member *d*, the tongues *n* and *o* spring inward a little, and pass about either side of the transverse rod *f*. The fashioning of the tongues *n* and *o* to a point aids in this action, since it then matters not how the members are telescoped together, the pointed ends of the tongues will serve as guides to cause the rod *f* to find its way between them. The rod *f* moves along said groove till it contacts with the medial angles *p*, such angles then deflecting the rod by pushing it to one side into the reëntering parts of the groove on opposite sides of the member *e* as shown in Fig. 4, when the compressed spring *g* by its bearing contact against the rod *f* will force it back reversely to the ends of such reëntering parts of the groove, which locks it removably in place.

To remove the member *e* from the member *d*, the member *e* is pushed in and partly turned, bringing the rod *f* back to the points of the angles *p*, when the spring *g* will exert its force and aid in propelling such rod from the grooves. It will be seen that the angles *p* not only aid in the deflection of the ends of the rod into the reëntering parts of the grooves, but also in expelling them therefrom. The rod *f* being secured at either end to the part *d*, is very strongly mounted, and when it is received into its seat in the reëntering parts of the grooves, is difficult to displace therefrom, unless the member *e* is first pushed in and partly rotated. There are no projections on the outer peripheries

of the members *d* and *e* to engage surrounding fabrics and thus cause the members to become disengaged from each other, and the smoothness of such peripheries enhances the appearance of the coupling, as well as affording a better opportunity for chasing or otherwise ornamenting it.

In Figs. 1 and 2, I have depicted the above described separable coupling as used in connection with a safety-pin or a brooch. In this application, the part *d* has both ends open and is fixedly mounted on the base-plate *a* near one end thereof. The rod *f* is separated into two oppositely located parts or studs, which enter the grooves between the tongues *n* and *o*, the space between the ends of said studs affording room for the passage therebetween of a long projecting pin axially located in the member *e* and whose one end is secured to the closed end of *e*. The coiled spring *g* similarly encircles the pin *b* within the member *e*, its intumed end *m* being similarly arranged with respect to the reëntrant parts of the grooves in *e* as shown in Fig. 4. The ring *c* at the end of the brooch and opposite to the member *d* is adapted to slidably receive the point of the pin *b*, which can not escape therefrom, since the ring is solid. The member *e* with its projecting pin *b* is engaged and disengaged from the member *d* in the same manner as hereinbefore described. It is evident that this arrangement of my improved separable coupling with a brooch is well adapted to fulfil the purpose of a guard, since it has no projecting parts to become entangled and loosened. The turning of the member *e* through part of a rotation, which can only be done by the fingers on account of there being no projecting stud or other device on its outer periphery, renders it extremely improbable that any extraneous inanimate agency can separate the said members, while the solid ring *c* securely restrains the point of the pin *b*, the latter has no hinged connection, but lies rigidly in its seat. It is also obvious that this form of separable coupling may be used on a larger scale, and

for other analogical purposes without varying from the scope and principle of my invention.

What I claim as new, and desire to secure by Letters Patent, is:

1. In combination, hollow receiving and received members, the received member being provided with oppositely-located longitudinal grooves each groove having two reversely-directed reëntering continuations, transversal engaging-means secured to the inner periphery of said receiving member, and adapted to slidably move within said grooves and be seated in two of their reversed continuations in the other member, and a spring within the bore of said received member adapted to engage and yieldably secure the said engaging-means in the continuations of said grooves, when said members are coactingly engaged.

2. In combination, hollow receiving and received members, the received member being provided with oppositely-located longitudinal grooves in its received end each of said grooves having oppositely-directed and reversed continuations at its inner end on either side of a medial angular projection reversely-directed, an angular reversely-directed projection between each pair of reversely-directed continuations, a rod secured transversely across the bore of said receiving member and adapted to pass within said grooves and their oppositely-placed continuations on one side of each of said medial angular projections when such members are coacting and partially rotated with respect to each other, and a coiled spring within the bore of said received member adapted to engage said rod when received within said grooves and their said continuations to yieldably secure it therein when said members are coactingly engaged.

Signed at Waterloo, Iowa, this 25th day of July, 1908.

STEAD A. ASQUITH.

Witnesses:

H. B. BURR,
G. C. KENNEDY.