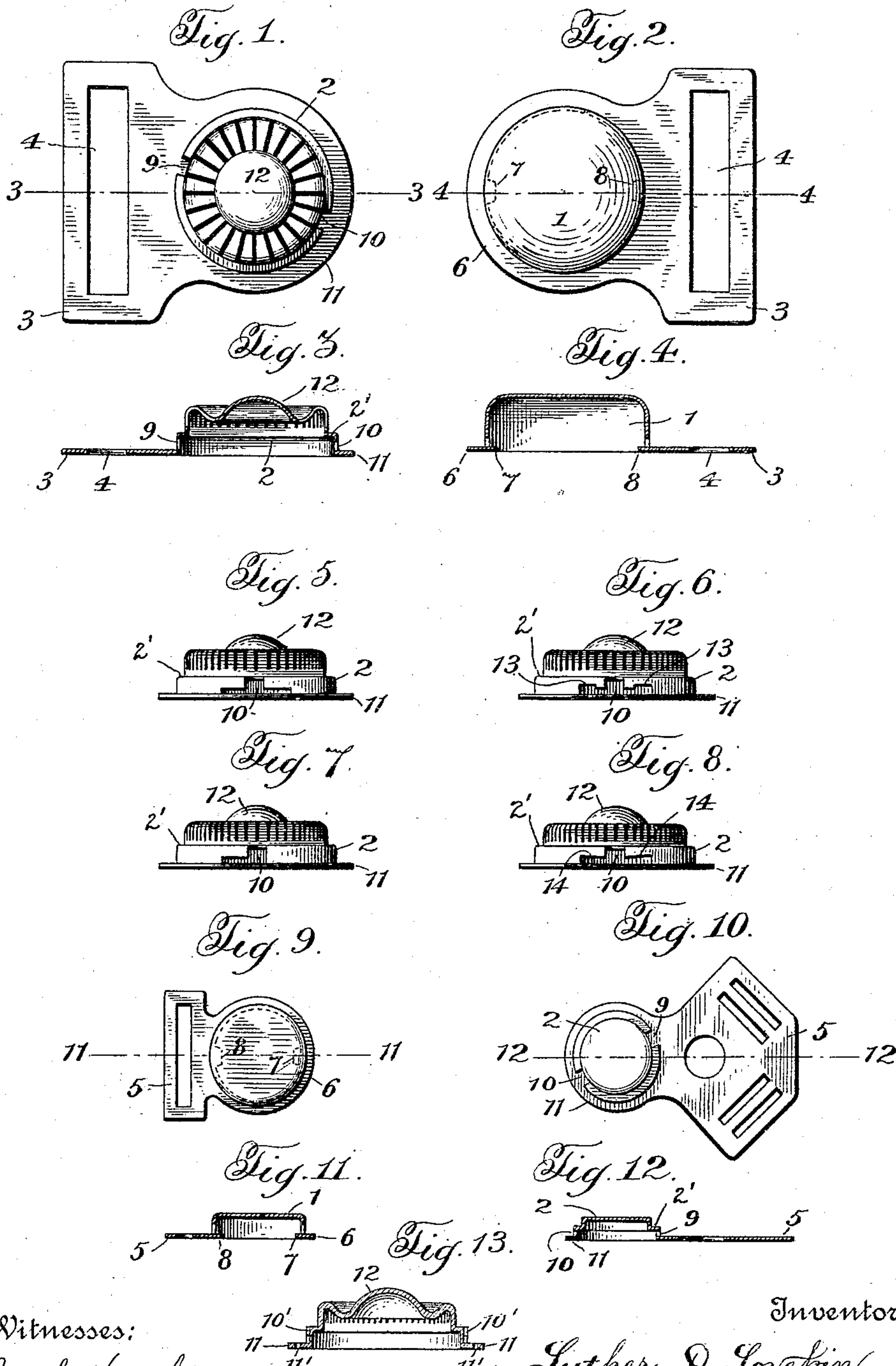


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SEPARABLE FASTENER OR CLASP.
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Patented Dec. 29, 1908.



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UNITED STATES PATENT OFFICE.

LUTHER DANIEL LOVEKIN, OF OVERBROOK, PENNSYLVANIA.

SEPARABLE FASTENER OR CLASP.

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To all whom it may concern:

Be it known that I, LUTHER DANIEL LOVEKIN, citizen of the United States, residing at Overbrook, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Separable Fasteners or Clasps, of which the following is a specification.

This invention relates to separable fasteners or clasps for use with belts, gloves, suspenders, garters, hand-bags, purses, or other similar articles of wearing-apparel, and it has for its principal object to provide a simple and efficient fastening device the members of which are adapted to be readily connected and disconnected and when in use will be free from liability to accidental disconnection.

A further object of the invention is to so form the members of the fastening device that they will neatly fit one within the other when in use, and further to have the locking parts of the fasteners situated in the plane of the body of the members, whereby all projecting portions of said locking parts will be incased within the outer member of the fastener. In such a structure where the members, when in locked position, nest closely together, said members take up a minimum amount of space as will be readily understood.

With these and other objects in view, which will appear more fully hereinafter, the invention consists of the novel construction and combination of parts herein described and claimed, reference being had to the accompanying drawing wherein,

Figure 1 is a top plan view of the inner member of the separable fastener, illustrating a suitable extension thereon to which may be connected the end of a belt or strap. Fig. 2 is a similar view of the outer member, Fig. 3 is a cross sectional view of the inner member taken on the line 3—3 of Fig. 1. Fig. 4 is a similar view of the outer member taken on the line 4—4 of Fig. 2. Fig. 5 is a side elevation of the inner member, illustrating a simple double bayonet-slot in its side wall. Fig. 6 is a similar view showing the double bayonet-slot and also the locking recesses. Fig. 7 is a like view illustrating the single form of bayonet-slot. Fig. 8 is a like view illustrating a double bayonet-slot having its horizontal portion slightly inclined. Fig. 9 is a plan view of the outer

member of the separable fastener as adapted for use in connection with garters. Fig. 10 is a similar view of the inner member of such a fastener. Fig. 11 is a cross sectional view of the outer member taken on the line 11—11 of Fig. 9, and Fig. 12 is a similar view of the inner member taken on the line 12—12 of Fig. 10. Fig. 13 is a cross sectional view of the inner member, illustrating some modifications of the same.

Corresponding and like parts are referred to in the following description and indicated in the several views of the drawing by the same reference characters.

Referring to the drawings, 1 indicates the outer member of the separable fastener, and 2 the inner member of the same, said members being formed of concavo-convex shape and adapted to neatly fit one within the other when in use. Each of the members is provided with some suitable means for securing the same to the article or garment upon which it is desired to be used. In this connection, it is to be noted that in Figs. 1, 2, 3 and 4, the members are formed with an extended portion 3 provided with a slot 4 to which may be attached the end of a belt or strap, and that in Figs. 9, 10, 11 and 12, the members are each provided with slotted extensions 5, to which garter elastic bands may be attached in the usual way. The members may also be attached in any other manner according to its use, such for instance as sewing or otherwise securing the members directly upon the face of the fabric.

In adapting the fastener for attachment directly to the face of the fabric, perforations, as indicated at 11' in Fig. 13, are provided in the flanges of both parts of the fastener, thus enabling the same to be sewed to the fabric. The outer member 1 is preferably made with its central portion concavo-convex, and the edges 6 thereof are flat and are provided, if necessary, with some suitable means for securing it to the material to which the member is to be applied. Formed upon the inside of this outer member are lugs or projections 7 and 8, which extend inwardly from the sides thereof as clearly shown in the drawing, and it is to be noted that said lugs are illustrated as being stamped out of the sides of the said outer member. While it is preferable to form the lugs in this manner, the same

may be formed in any other way as may be found desirable. These lugs or projections are positioned diametrically opposite one another and constitute the means for locking the said outer member to the inner member, the lugs 7 and 8 engaging within bayonet-slots 9 and 10 respectively, which are formed in the sides of the inner member. Instead of providing bayonet-slots as are shown in the accompanying drawing, grooves may be formed upon the outside of the inner member in such position as to be engaged by the lugs or projections heretofore referred to, said grooves being indicated at 10' in Fig. 13. It is to be noted that the inner member is also made of concavo-convex shape and is adapted to neatly fit within the outer member when in use, the edges 11 of said member being also made flat and provided with means for securing the same in applied position.

The normal position of the lugs or projections when attached to the article or garment, is a little to one side of the entrance to the bayonet-slots, so that it requires the upper or outer member to be turned a partial revolution to allow the lugs to enter their respective slots, and after the lugs have passed along the vertical portion of the bayonet-slots, said outer member is turned back to its normal position to cause the lugs to enter the horizontal portion of said slots and thereby lock the members together.

It is to be further noted with respect to the lugs or projections, that when the members are brought together for the purpose of locking the same, said lugs, if they do not immediately enter their respective slots, will be supported upon a shoulder 2' formed on the inner member, and owing to the fact that the edges of the lugs will, when in this position, engage the sides of said inner member, said lugs will be guided thereby for the purpose of enabling them to more readily enter their respective slots as the members are rotated. By this construction the parts are adapted to be locked together without difficulty.

The upper portion or top 12 of the inner member is made somewhat flexible and adapted to be depressed by the upper or outer member when the members are in locked position, whereby said flexible portion acts as a spring to hold the parts against accidental displacement. In other words the flexible portion of the inner member after being depressed by pressure being brought to bear upon the top surface of the outer member, serves to force the members apart and thereby hold the lugs under tension against the upper side of the horizontal portion of the bayonet-slot.

The simple form of bayonet-slot as shown in Fig. 7 can be used with great advan-

tage in a fastener of the type herein described, and will effectively prevent any accidental disconnection of the parts when said parts are in locked position and under tension as herein set forth. It is, however, to be noted that in Fig. 6, a recess 13 is formed in the sides of the inner member and extends upward a slight distance from the extreme end of the horizontal portion of the bayonet-slot, forming an extension thereof. In such a construction the lugs are adapted to engage within said recesses, when in locked position, to further prevent accidental disconnection of the members, the lugs being held in such position owing to the tension exerted by the spring metal top 12 upon the several parts of the fastener. Again in Fig. 8, the horizontal portion of the bayonet slot is formed with its upper side slightly inclined as shown at 14, the same providing a very simple and efficient means for preventing the accidental working loose of the parts of the fastener, it being understood that considerable friction would be brought to bear as the lugs were made to slide upon this inclined surface against the tension of the spring member heretofore referred to. It is still to be further noted that in Figs. 5, 6, and 8 the inner member is illustrated with a double bayonet slot, that is to say slots which have their horizontal portion extending to either side of the vertical portion of said slot, so that the members may be locked together by turning the outer member in either direction as may be desired.

It will be readily understood from the foregoing description that it is practically impossible to disengage the members from one another by mere pull or tension, but that it will be necessary to first compress the upper or outer member, which will in turn depress the flexible top portion of the inner member and thus relieve the tension upon the lugs and allow them to pass freely within the slots as the outer member is turned a partial revolution in order to disengage the locking parts of the fastener. At the same time the operation is one which can be very easily performed, in view of the fact that the compressing and turning of the outer member will constitute practically a continuous operation. No amount of tension, however, will serve to disengage the parts, and this fact renders the fastener or clasp highly superior to the snap-fastener ordinarily used on gloves, which can be disengaged by a pull or tension and which after continuous usage for a short time becomes so loose and worn that the parts will become disengaged on the slightest provocation.

What I claim is:—

1. A separable garment fastener, comprising an outer concavo-convex member having lugs or projections extending inwardly from the sides thereof, an inner member nesting

within the outer member and having bayonet slots therein which are adapted to receive the said lugs for the purpose of locking the members together by rotary movement, and means carried by each member for attaching the same to the garment.

2. In a separable fastener, the combination of an outer member having lugs or projections extending inwardly from the sides of said member, and an inner member having bayonet-slots for receiving the said lugs and locking the members together, a portion of said inner member being flexible and adapted to serve as a spring for holding the members in locked position.

3. A separable fastener comprising two companion concavo-convex members which are provided with means for locking the same together, one of said members being flexible and adapted to be depressed when in use, whereby the same acts as a spring to hold the members in locked position.

4. A separable fastener comprising two companion concavo-convex members, one of which is provided with bayonet-slots and the other lugs or projections to engage in said slots for locking the members together, said slotted member having a flexible top which serves when depressed by the other member as a spring to hold the members in locked position.

5. A separable fastener comprising two companion members provided with means for locking the members together, and one of said members being provided with an integral spring which is adapted to be engaged by the other member and to hold said members in locked position.

6. A separable fastener comprising two companion members provided with means for locking the members together by rotary movement, and one of said members being provided with an integral part which is adapted to be depressed by engagement with the other member during said rotary movement for the purpose of serving as a means for holding the members in locked position.

7. A separable fastener comprising two companion members provided with means for locking the members together, and one of said members having an integral flexible portion which is adapted to be engaged by the other member to hold said members in locked position.

8. A separable fastener comprising two companion concavo-convex members adapted to fit neatly one within the other, and means for locking said members together, the inner member having a flexible top which is capable of being depressed by pressure applied upon the outer member, in which depressed position it serves as a spring to retain the members in locked position.

9. A separable fastener comprising an outer member having lugs projecting inwardly

from the sides thereof in a plane with its base, and an inner member having bayonet slots for receiving the said lugs and locking the members together, the horizontal portion of said slots being approximately in the same plane with the lower edge of the inner member.

10. A separable fastener comprising two co-acting members, one of which is provided with lugs which project from the sides thereof in a plane with its base, and the other having bayonet slots for receiving the said lugs and locking the members together, the horizontal portion of said slots being approximately in the same plane with the lower edge of the slotted member.

11. A separable garment fastener comprising two co-acting members each provided with means for attaching the same to the garment, one of which is provided with lugs or projections, and the other slots for receiving the lugs and locking the members together, means on said slotted member for supporting the lugs in proper position to be guided to their respective slots, and means for guiding the lugs to the entrance of said slots.

12. A separable garment fastener comprising two co-acting members each provided with means for attaching the same to the garment, one of which is provided with lugs or projections, and the other slots for receiving said lugs and locking the members together, a supporting surface on said slotted member for locating the lugs in proper position to be guided to their respective slots, and a guiding surface also formed on the slotted member and with which the lugs engage so as to enable them to more readily enter said slots.

13. A separable fastener comprising an outer member having lugs or projections, an inner member having slots for receiving the lugs and locking the members together, means on said slotted member for supporting the lugs in proper position to be guided to their respective slots, means also formed on the slotted member for guiding the lugs to the entrance of said slots, and a spring for holding the members in locked position.

14. A separable garment fastener comprising two co-acting members each provided with means for attaching the same to the garment, one of which is provided with lugs or projections, and the other slots for receiving the lugs and locking the members together, a shoulder on the slotted member for supporting the lugs in proper position to be guided to their respective slots, and an annular surface with which the lugs engage for guiding the same to the entrance of said slots.

15. A two part fastener, comprising two substantially cylindrical portions one adapted to fit over and surround the other, and a lateral extension carried by each of the cylindrical portions for attaching the same to the ends of a belt, said cylindrical portions being also provided with bayonet joint interlocking de-

vices arranged to permit the engagement and
disengagement of said cylindrical portions
when they are turned relatively to each other
so that said extensions are at an angle to one
5 another, and to prevent said disengagement
when said extensions are in the same straight
line.

In testimony whereof I affix my signature
in presence of two witnesses.

LUTHER DANIEL LOVEKIN.

Witnesses:

PHILIP PISTOR,
EDGAR H. PATTERSON.