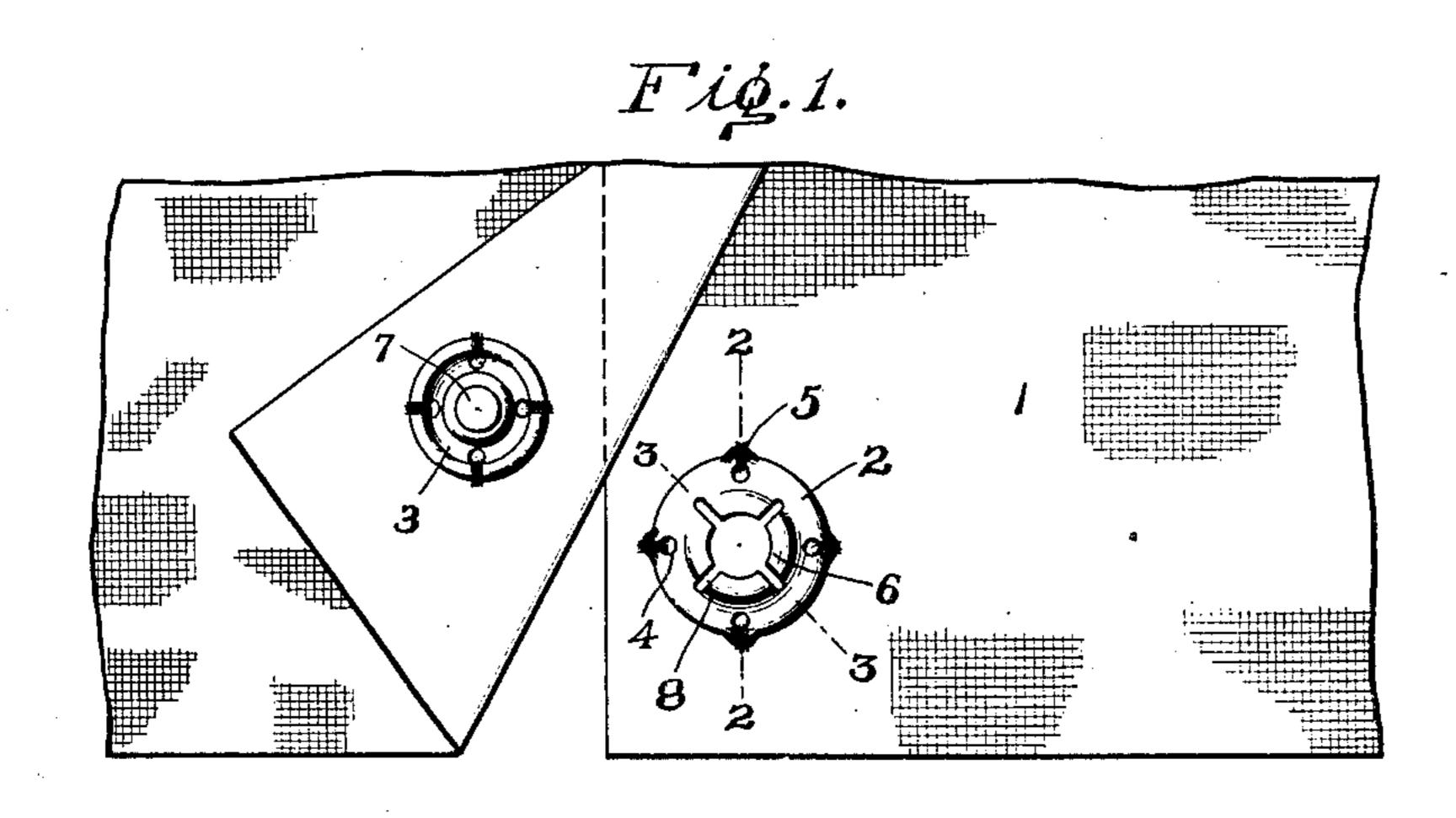
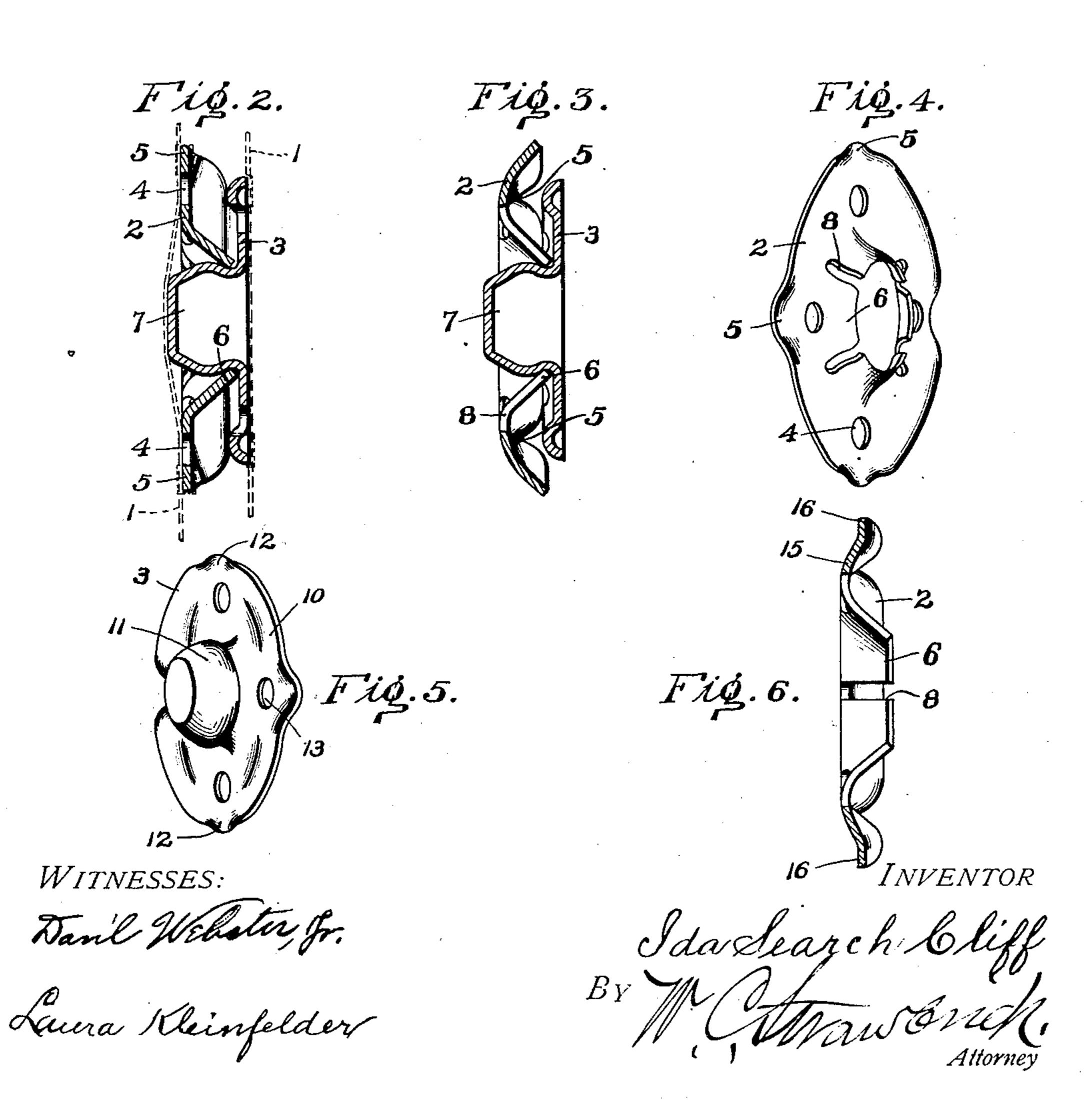
## I. S. CLIFF. SEPARABLE GARMENT FASTENER. APPLICATION FILED JUNE 15, 1906.





## UNITED STATES PATENT OFFICE.

IDA SEARCH CLIFF, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THE DE LONG HOOK AND EYE COMPANY, OF PHILADELPHIA, PENNSYLVANIA, A CORPORATION OF WEST VIRGINIA.

SEPARABLE GARMENT-FASTENER.

No. 890,608.

Specification of Letters Patent.

Patented June 16, 1908.

Application filed June 15, 1906. Serial No. 321,823.

To all whom it may concern:

citizen of the United States, residing in the | at the highest point of the member, considercity and county of Philadelphia, State of | ing the same from the convex side thereof. 5 Pennsylvania, have invented certain new and useful Improvements in Separable Garment-Fasteners, of which the following is a specification.

My invention relates to improvements in 10 separable garment fasteners and it has for one of its objects to provide means whereby the threads or other means which may be employed to secure the socket or female member

of the fastener to an article are protected and 15 thus prevented from being worn or abraded.

If desired, my invention may also be applied to the stud member of the fastener, but as this member is of smaller dimensions than the socket member, it has been found in 20 practice to be unnecessary.

Other objects of my invention will appear herein in the course of the detailed descrip-

tion of my fastener.

In order that my invention may be more 25 readily and clearly understood, reference is to be had to the accompanying drawings forming a part of this specification, and in which,

Figure 1 is a view of a portion of a garment 30 showing a fastener embodying my invention secured thereto; Fig. 2 is a section of the fastener with the parts assembled, the section being taken on a line corresponding to the line 2-2 of Fig. 1; Fig. 3 is a section of the 35 fastener with the parts assembled, the section being taken on a line corresponding to the line 3—3 of Fig. 1. Fig. 4 is a perspective view of the socket member; Fig. 5 is a perspective view of a stud member provided 40 with my invention; and Fig. 6 is a section corresponding to the section 3—3 of Fig. 1, showing a modified construction.

In the drawings,—1 designates the material or fabric of the edge portion of an 45 article or garment of any character, which | edge portions are adapted to overlap and to be secured together by means of fasteners. 2 designates the socket member of a fastener, which socket member is made according to 50 my invention, and 3 designates a stud mem-

ber of usual construction.

The socket member of my device consists of a plate which is of ring or annular shape and which ring is concavo-convex in cross-55 section. The openings 4 for the securing

means, usually thread, are located in the Be it known that I, Ida Search Cliff, a | socket member of the fastener substantially The material outside of the thread openings, co that is, between the thread openings and the outer edge of the socket member, is depressed, as indicated at 5 in the drawings, so that such points of the fastener are in the same plane or substantially the same plane c5 as the highest portion of the concavo-convex socket member.

As will be observed, the depressed portions 5 extend away from the socket 6 of the socket member. The construction of the socket 70 member may be considered from two aspects, that is, the fastener may be regarded as consisting of the socket 6 having a straight or flat flange by means of which it is secured to the material of a garment, which flange is 75 provided with raised portions between the openings for the thread or other securing means. On the other hand, the fastener may be regarded as an annular ring which is concavo-convex in cross-section and which and is provided at intervals in its outer portion with depressions, such as are shown at 5 in the drawings.

It will be observed that in the construction shown, the fastener is anchored to the por- 35 tion of the article to which it is secured at points below the mouth of the socket 6. In other words, the portions of the fastener in which the openings 4 for the securing means are provided are in substantially the same ?? plane with the highest portion of the groove formed by making the member concavoconvex in cross section, and in consequence of which the anchorage portions of the socket member of the fastener lie flat against the 55 cloth or other material to which this member of the fastener is secured, the cloth itself being substantially flat.

The raised or upturned portions of the fastener between the thread eyes serve the pur- 100 pose of protecting the thread against a large proportion of the abrading action to which the thread, by means of which fasteners of the character are usually secured to an article, is usually subjected. By reason of this pro- 105 tection, it is found that the thread will last a relatively long time.

In order that the socket 6 may be sufficiently resilient or flexible to permit the entry thereinto of the stud 7 of the stud mem- 110

ber 3, I have provided the radial slots 8 which extend into the material of the socket member, as indicated in the drawings. The distance to which these slots may be ex-5 tended may be varied. All that is necessary is to extend them far enough to secure the amount of resilience or flexibility desired.

In Fig. 5, I have shown the stud member 10 of a fastener, which member is provided 10 with my invention, that is to say, the annular flange portion of the member between the stud 11 and the periphery thereof is concavo-convex in cross-section and is provided at intervals with depressions 12 in line with

15 the thread openings 13.

In Fig. 6, I have shown a socket member 15 of modified construction. The construction differs from that of the socket member shown in Figs. 1 to 4, inclusive, in that the concavo-20 convex portion thereof is provided with a narrow rim or flange 16 extending entirely around the concavo-convex portion. Generally speaking, this rim or flange need not be employed, but by employing it, a socket 25 member of greater strength is produced, which may be desirable in some instances.

The figures in the drawings are made upon a large scale, and it will be understood, therefore, that in the fastener as produced commercially, the rim or flange 16 would be very 30 narrow, perhaps one-third or one-fourth the width shown in Fig. 6 of the drawings.

Having thus described my invention, I

claim:---

A member of a stud and socket garment 35 fastener which is provided with an annular depression and openings located at points substantially in the bottom of the said depression and also with depressions in line with the said openings and which extend 40 transversely of the said annular depression, the bottoms of the said transversely extending depressions being substantially in the same plane as the bottom of the said annular depression.

In testimony that I claim the foregoing as my invention, I have hereunto signed my name this 13th day of June, A. D. 1906.

IDA SEARCH CLIFF. In the presence of— MARGARET E. STACKHOUSE, J. Burton Stackhouse.