

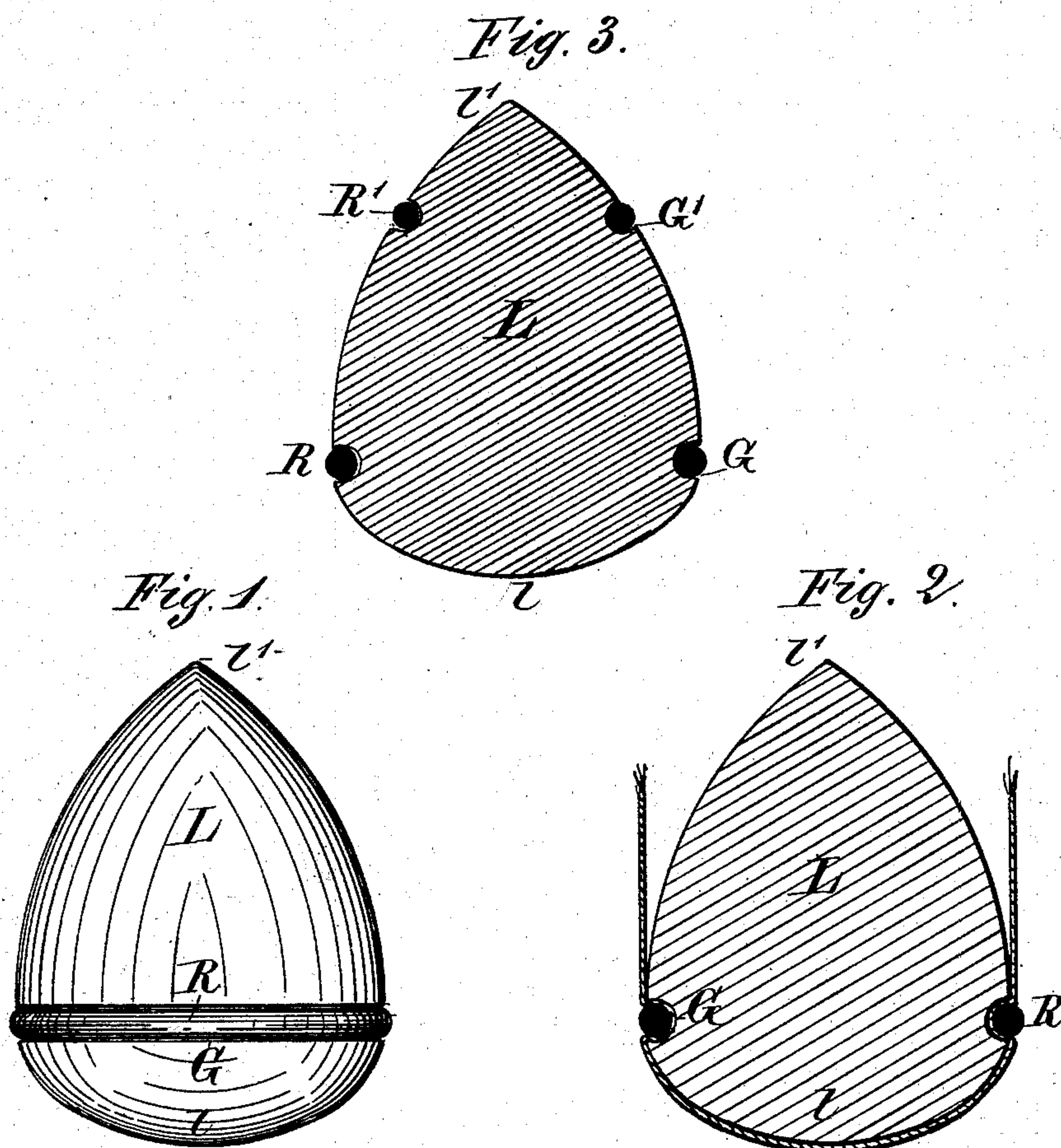
(No Model.)

G. A. COCHRANE.

DARNING LAST.

No. 258,378.

Patented May 23, 1882.



Witnesses.  
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# UNITED STATES PATENT OFFICE.

GEORGE A. COCHRANE, OF NEW YORK, N. Y.

## DARNING-LAST.

SPECIFICATION forming part of Letters Patent No. 258,378, dated May 23, 1882.

Application filed February 28, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE A. COCHRANE, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Darning-Lasts; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

The invention consists in a darning-last having substantially a conoidal form—namely, a body having a rounded and slightly flattened base and sides curving from base to vertex.

The invention further consists in providing means for connecting the article to be darned firmly to the darning-last and in such manner that said article may be readily disconnected from said last.

One of the most trying operations in the process of darning on a last, usually made of some hard polished substance—such as porcelain, hard wood, or glass—and of such a form as to readily shift its position by the slightest pressure of the hand, is the holding of the article to be darned in proper position on the last.

The darning-lasts now used are devoid of means for connecting the article firmly therewith. Their form is either spherical or ovoidal, hence unstable when enveloped by the article to be darned. To hold the two in proper relation to each other it is necessary to clutch the folds of the article below the last or on the side opposite to that portion of such article intended to be darned, so as to stretch it properly. The small hold the article affords tends to cramp the hand, and if the article and last are both grasped the least movement of the fingers will cause the last either to slip from under the surface to be darned or to be moved so as to destroy the proper relation of the two.

Owing to the latter difficulty, it is almost impossible to darn a piece of fabric—such as a wristlet or the wristlet of a glove or a piece of lace—not sufficiently large to inclose the last and provide a good hold. On the other hand, the work cannot be interrupted by temporarily laying it down without disturbing this rela-

tion between the article and last, and when resumed an adjustment of the two becomes necessary.

The object of my invention is to remedy these disadvantages by forming an annular groove upon any point between the vertex and base of the conoid or ovoid, or around the periphery of the last if its form is spherical. In a last of ovoidal or conoidal form I prefer to form the groove at the point of or in close proximity to the greatest diameter of the last. A last of usual or any preferred form may be so provided with a groove; but I prefer to use lasts of substantially a conoidal form—that is to say, a body having a rounded and slightly-flattened base and a periphery composed of lines curving from the base to the vertex. This form of darning-last is most convenient, it having a practically pointed end that adapts it for use in darning small articles of narrow structure—such as the toe end of children's stockings—while its larger base and curving sides adapt it for use in darning any worn surface. I prefer giving the base a flattened surface, for the reason that it is difficult to pass the needle over a large gap when stretched over an arc of a true circle, as the needles usually employed are comparatively long and of rigid material.

I am aware that darning-lasts of ovoidal form have long been in use, and I do not desire to claim such a form, as it does not answer the purposes for which my improved last is designed, the apex of such lasts being too broad and the base too narrow in proportion to each other.

In the accompanying drawings, Figure 1 represents my improved darning-last in elevation. Figs. 2 and 3 are vertical sections thereof, the former showing the manner of attaching the fabric to the last.

L is the last, of substantially the form above described—that is, with a broad and flattened base, *l*, and a sharp point or vertex, *v*. It is provided, preferably at or near its greatest diameter, with a peripheral groove, *G*, of such depth as to accommodate a moderately-thick rubber ring, and in such manner that the ring will lie nearly flush with the face of the last. Hence when a last is introduced into a stocking or inclosed by any other fabric to be darned, or when a fabric of less superficial area than



the last is applied thereto, as shown in Fig. 2, the ring R will project just sufficiently beyond the groove to permit its ready removal therefrom either by hand or by drawing the fabric against it. The ring being cylindrical in cross-section, this removal is greatly facilitated, since it is capable of acquiring a rolling motion either by pushing it with the hand or by drawing the fabric against it, as will be readily understood.

10 Instead of a single groove at or near the point of greatest diameter of the last, a second groove, G', as shown in Fig. 3, may be formed in the last at a point near its vertex, in which lies a second ring, R', for attaching very small  
15 articles to the last.

Of course it will be understood that I do not limit myself to any particular form of darning-last in the application thereto of means for connecting the fabric therewith, as it is evident that any form of darning-last may be  
20 provided with the groove G; nor do I limit myself to the use of an elastic band, R, for effecting such connection, or to an elastic band that is cylindrical in cross-section, as any other  
25 convenient or preferred means may be employed.

What I claim is—

1. A darning-last having a groove formed around its body, in combination with an elastic  
30 band or equivalent means for securing the fabric to said last, for the purpose set forth.

2. A darning-last provided with two or more peripheral grooves, in combination with an elastic band or bands, for the purposes specified.

3. A darning-last having a groove formed  
35 around its body at or near its greatest diameter, in combination with an elastic band cylindrical in cross-section, as and for the purpose specified.

4. A darning-last of conoidal form, having  
40 a peripheral groove at or near its greatest diameter and a like groove near its vertex, in combination with elastic bands, as and for the purpose specified.

5. A darning-last having the configuration  
45 herein described and shown—that is, of substantially conoidal form, with broad flattened base and sides or periphery, curving from base to point or vertex, substantially as and for the purpose specified.  
50

6. In combination with a darning-last, a band or equivalent means for holding the fabric rigidly thereon, as described.

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

GEORGE AUGUSTUS COCHRANE.

Witnesses:

FRANC T. MALLARY,  
EMMA C. MALLARY.