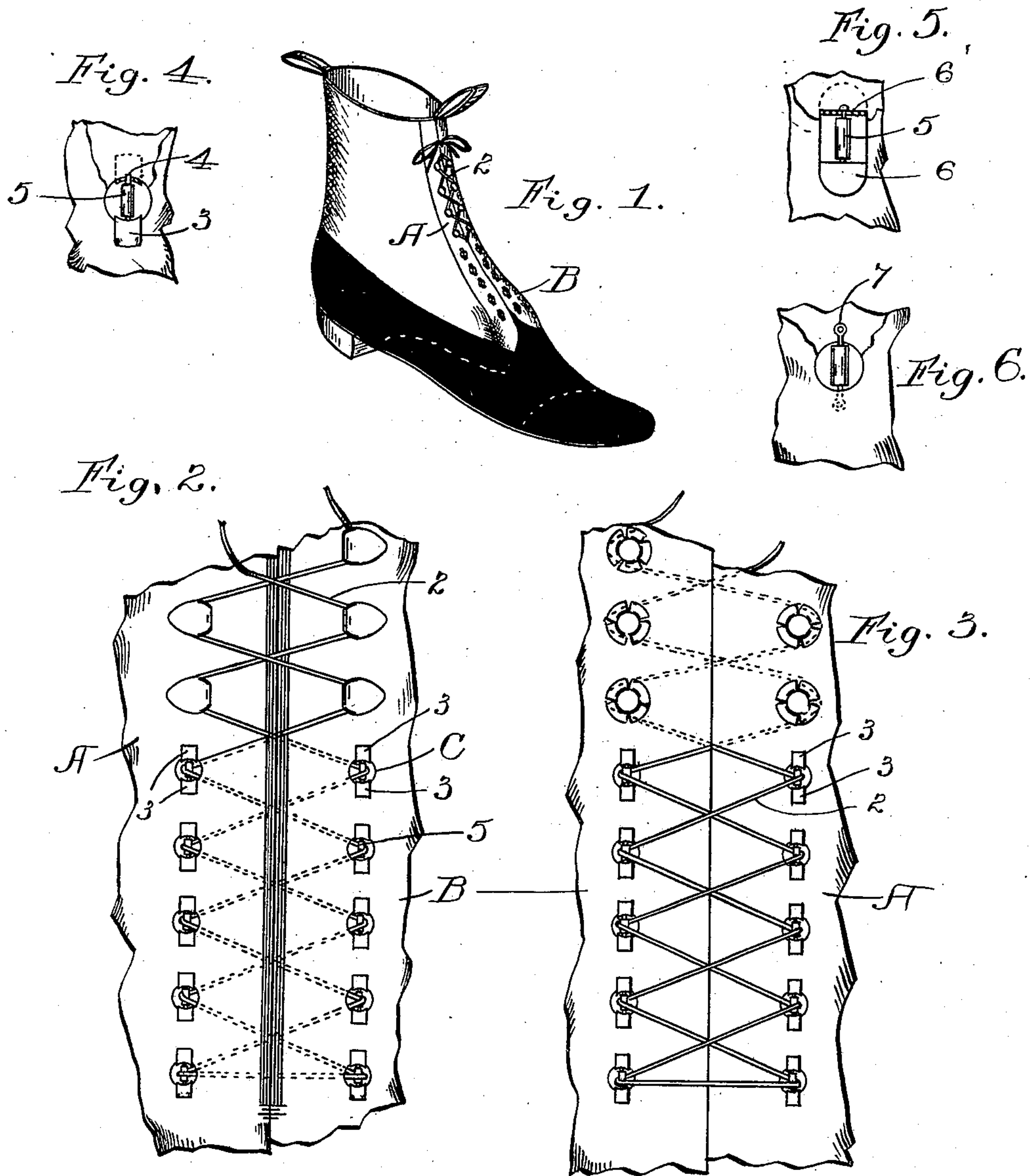


(No Model.)

R. C. PLEINS.
LACING EYELET.

No. 564,579.

Patented July 21, 1896.



Witnesses:

W. G. Broadbent
H. S. Johnson

Inventor:

Rudolph C. Pleins.
per: *T. D. M. M. M.*
Attorney.

UNITED STATES PATENT OFFICE.

RUDOLPH C. PLEINS, OF ST. PAUL, MINNESOTA, ASSIGNOR OF ONE-HALF
TO LEO H. PLEINS AND JAMES C. BRAMWELL, OF SAME PLACE.

LACING-EYELET.

SPECIFICATION forming part of Letters Patent No. 564,579, dated July 21, 1896.

Application filed January 13, 1896. Serial No. 575,295. (No model.)

To all whom it may concern:

Be it known that I, RUDOLPH C. PLEINS, of St. Paul, Ramsey county, Minnesota, have invented certain Improvements in Lacing-Eyelets, of which the following is a specification.

My invention relates to improvements in lacing-eyelets for shoes, gloves, leggings, and the like, its object being to provide a form of eyelet through which the ordinary lacing will freely run, and thus adapt the fabric or garment to the different positions of the wearer without undue strain upon any portion of the lacing, and also to adapt the article to be instantly loosened when the lacing is untied, by simply pulling the parts asunder, the lacing freely running through the openings.

To this end my invention consists in providing each of the eyelet-openings with a transverse pivot-pin on which is preferably journaled a sheave or sleeve, upon which the lacing runs in the manner of a belt over a pulley, the walls of the opening adjacent the sides of the pin being the exposed portion of the fabric, whereby the same will yield to permit the lacing to pass through.

My invention further consists in the specific features of construction hereinafter particularly described and claimed.

In the accompanying drawings, forming part of this specification, Figure 1 is a perspective view of a shoe shown fitted with my invention, illustrating the manner in which the lacing can be applied so as to be inside of the shoe and concealed from view. Fig. 2 is a detail outside view of a portion of a shoe-upper, shown fitted with my invention with the lacing underneath or concealed. Fig. 3 is a reverse or inside view of the same. Fig. 4 is a detail of one form of my invention, and Figs. 5 and 6 are similar details illustrating modified means for holding the pivot-pin in place in the eyelet-opening.

In the drawings, let A and B represent the parts of the garment or the flaps of a shoe united by the lacing 2. Through the adjacent edges of the parts A and B are arranged the eyelet-openings C. Spanning each of said openings and anchored in the side walls of the same by means of the clips 3 is the

pivot-pin 4, upon which is preferably arranged the loose sheave or sleeve 5. The clips 3 are clinched upon the fabric, one upon each side of the opening, and the ends of the pivot-pin are journaled or anchored therein.

Fig. 5 is an inside view of an eyelet-opening, showing a modified form of clip for holding the pivot-pin in place. In this form the clips 6 are attached to the fabric in a manner similar to those shown in Fig. 4, the outer ends of the clips being straight so as to form the end walls of a rectangular eyelet-opening.

In Fig. 6 is shown still another way of anchoring the ends of the pivot-pin in the sides of the eyelet-opening. In this construction the pivot-pin is formed with flattened ends 7, having holes through which to insert the rivet. The ends of the pivot are passed between the two layers of the fabric on the opposite sides of the opening and then riveted in place, as shown.

By means of my invention the shoe may be laced in the ordinary manner—i. e., with the lacing both inside and outside the shoe—or, if preferred, the lacing may be entirely inside of the shoe, as shown in Fig. 1. When it is desired to open the shoe for purpose of removing it or for lacing it upon the foot of the wearer, the side walls of the upper are adapted to be grasped by the hands and pulled apart, the lacing running freely through the openings. Where the lacing is applied to the wrist of a glove or to a legging or similar article, it may be loosened in the same manner, and when the garment is in use and the lacing fastened it can be bent or twisted freely to adapt itself to the movement of the wearer, the lacing freely running through the eyelet-openings in the same manner as a rope over a sheave, so that the strain is not brought to bear upon any one portion or loop of the lacing, but is distributed throughout.

While I show a sheave or a sleeve upon the pivot-pin, it is evident that this may be dispensed with and the lacing allowed to slide upon the pin.

I claim—

1. In combination with an article of the

class described, formed with openings to receive the lacing, the clamps attached to the fabric at the opposite sides of said openings, the walls of the openings intermediate of said
5 clamps being the exposed portion of the fabric, and the pins spanning said openings with their ends fixed in said clamps.

2. In combination with an article of the class described formed with openings to receive the lacing, the transverse pivot-pin
10 spanning each of said openings, the independent means for anchoring the ends of

said pivot-pin in the opposite sides of said opening, the walls of the opening intermediate of said anchoring means being the exposed
15 portion of the fabric, and the sleeve turning loosely upon said pin and adapted to carry the lacing.

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

RUDOLPH C. PLEINS.

Witnesses:

T. D. MERWIN,
H. S. JOHNSON.