(No Model.)

R. C. PLEINS.

COMBINATION LACING HOOK AND EYELET.

No. 589,395. Patented Aug. 31, 1897.

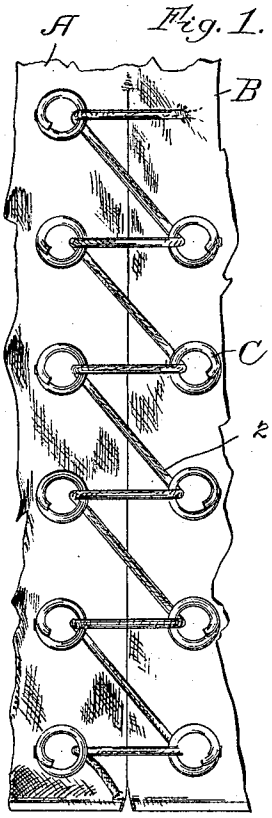


Fig. 1.

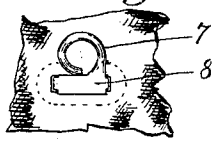


Fig. 4.

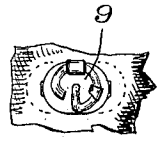


Fig. 6.

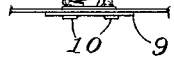


Fig. 5.

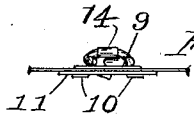


Fig. 7.

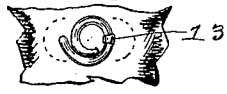


Fig. 8.

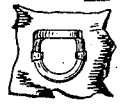


Fig. 10.

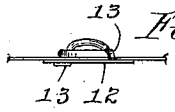


Fig. 9.



Fig. 11.

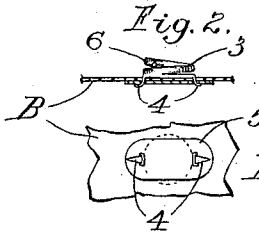


Fig. 2.

Fig. 3.

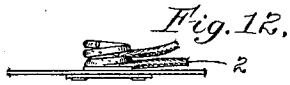


Fig. 12.

Witnesses:
W. St. Goodbury.
H. C. Johnson.

Inventor:
Rudolph C. Pleins.
per: T. D. Merwin
Attorney.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

RUDOLPH C. PLEINS, OF ST. PAUL, MINNESOTA, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, OF FIVE-EIGHTHS TO DE WITT C. JONES AND NILES S. CHITTENDEN, OF SAME PLACE.

COMBINATION LACING HOOK AND EYELET.

SPECIFICATION forming part of Letters Patent No. 589,395, dated August 31, 1897.

Application filed December 1, 1896. Serial No. 614,050. (No model.)

To all whom it may concern:

Be it known that I, RUDOLPH C. PLEINS, of St. Paul, Ramsey county, Minnesota, have invented a certain Improved Combination Lacing Hook and Eyelet, of which the following is a specification.

My invention consists of an improved lacing-eyelet for shoes, gloves, and the like, its object being to provide an improved construction thereof in which the lacing is adapted to be laterally inserted, as with the ordinary lacing-hook, while being held from removal and running as freely as with the common eyelet.

To this end my invention consists, preferably, of a resilient spiral superposed upon the fabric, constituting an eyelet, with the end thereof closed upon the adjacent spiral to form a spring-closed lateral opening through which the lacing may be passed. The lateral opening is thus closed against the removal of the lacing, and the same must be unlaced by pulling it through the eyelets in the ordinary manner.

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

In the accompanying drawings, forming part of this specification, Figure 1 is a detail outside view of a portion of a glove fitted with my invention. Figs. 2 and 3 are details of my improved form. Figs. 4 and 5 are details of a modified form in which the eyelet is formed integral with a plate secured upon the fabric. Figs. 6 and 7 illustrate another modified form provided with a roller over which the lacing is adapted to run. Figs. 8 and 9 show another modified form having a slightly-different method of attachment. Figs. 10 and 11 show still another form of eyelet, and Fig. 12 illustrates a modified construction for holding the end of the lacing.

In the drawings let A and B represent the parts of the glove united by the lacing 2.

C represents my improved combination hook and eyelet secured near the edges of the parts A and B. This consists, preferably, as shown in Figs. 2 and 3, of a spring-spiral 3, superposed upon the fabric and held in place by means of spurs 4, secured in a plate 5 upon the under side of the fabric. The end 6 of the spiral is preferably downturned toward the center, forming a spring-closed lateral opening through which the lacing may be easily inserted, but which is closed against its removal. Thus the lacing is adapted to be inserted in the eyelet by merely forcing it through the opening, as with the ordinary hook, but when in place it runs freely over the side of the eyelet, as shown in Fig. 1, the invention thus combining the advantages of both the ordinary eyelet and hook.

It will be evident that the eyelet may be modified in its shape and differently secured to the fabric without departing from the idea of my invention. This is illustrated by the remaining figures.

In Figs. 4 and 5 the eyelet 7 is shown formed integral with the plate 8, which plate is secured to another plate 9 underneath the fabric by means of spurs 10.

In Figs. 6 and 7 the eyelet is shown secured to the plate 9 by means of the clips or spurs 10, the plate 9 being secured to another plate 11 underneath the fabric, as in Figs. 4 and 5. This form illustrates the use of an antifriction-roller 14, arranged upon the inner side of the eyelet and over which the lacing is adapted to run. This may be provided when it is desired to obtain a more freely running lacing.

In Figs. 8 and 9 the eyelet is secured directly to a plate 12 underneath the fabric by means of the spurs or clips 13 upon the plate passing through the fabric, and in Figs. 10 and 11 a similar means of attachment is shown, the shape of the eyelet being slightly different.

Fig. 12 shows the same idea involved in a hook-eyelet for holding the end of the lacing. In this form the spiral is provided with an additional turn, so that the lacing may be held between the lower turns of the spiral, as shown. The lacing is adapted to be inserted in the same manner as in the other forms and is held from removal by the spring-pressure of the lower spirals, as shown in Fig. 12.

In all of these forms it will be noted that the idea of the invention is the same. The

lacing is as easily inserted through the lateral spring-controlled opening as it is placed in the opening of the ordinary hook, and when it has been inserted in my eyelet the jaw closes, preventing removal, thus forming a closed eyelet for the lacing.

I claim—

1. As an improved article of manufacture, a resilient spiral constituting an eyelet, with the end thereof closed upon the adjacent spiral to form a spring-closed lateral opening, and means for securing it upon the top of the fabric.

2. As an improved article of manufacture, an eyelet adapted to be superposed upon the fabric, and having a spring-closed lateral lacing-opening, and the plate upon the opposite face of the fabric secured to, and forming a support for, said eyelet.

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

RUDOLPH C. PLEINS.

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