(No Model.)

S. MONTGOMERY.

LACING STUD.

No. 256,585. Patented Apr. 18, 1882.

FIG. 1.

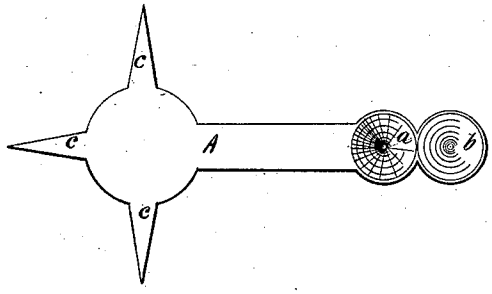


FIG. 2.

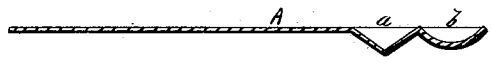


FIG. 3.

FIG. 4.

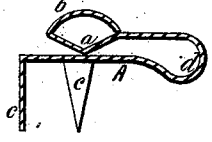


FIG. 6.

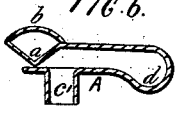


FIG. 5.

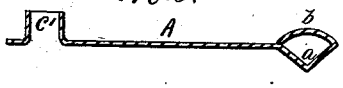


FIG. 7.

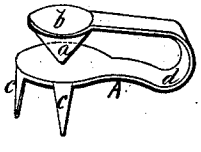
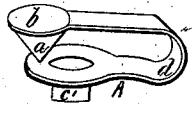


FIG. 8.



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UNITED STATES PATENT OFFICE.

SAMUEL MONTGOMERY, OF NEW YORK, N. Y.

LACING-STUD.

SPECIFICATION forming part of Letters Patent No. 256,585, dated April 18, 1882.

Application filed February 25, 1882. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL MONTGOMERY, of New York city, county of New York, and State of New York, have invented certain new and useful Improvements in Lacing-Studs, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention has relation to spring lacing-studs or lacing-hooks of the character shown in the United States Patent granted to me January 24, 1882, No. 252,617; and the object of my present invention is to improve the construction and arrangement of the parts of the hook in such manner that the device may be easily, cheaply, and quickly made, so that the lacing-cord may be readily drawn into the stud and as readily removed when desired, and so that (as when applied upon gloves and like articles) the strain upon the lacing will not cause the several studs or hooks to incline one toward the other, as is common in previously-known forms of studs.

To accomplish these objects the invention involves certain novel and useful peculiarities of construction, relative arrangements, or combinations of parts, and details of manufacture, all of which will be herein first fully described, and then pointed out in the claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a plan of a blank indented at one end and ready to be bent into proper form or shape to complete the improved stud or hook. Fig. 2 is a sectional view of blank shown in Fig. 1; and Fig. 3, a similar view, showing the securing-points bent up and the end completed. Fig. 4 is a sectional view of the finished hook. Figs. 5 and 6 are views similar to Figs. 3 and 4, with the exception that the stud is intended to be fastened in place by an eyelet instead of by projecting points. Figs. 7 and 8 are perspective views, showing the improved stud or hook ready for application to any article. In all these figures the parts are represented as much larger than it is generally necessary to make them, though it should be understood that any desired size may be employed.

Like letters of reference, wherever they occur, indicate corresponding parts.

The spring closing-hooks, as explained in my former patent before mentioned, are employed in situations where it is desirable to obviate any catching or entangling of laces, light fabrics, &c., with which the hooks may come in contact either when worn or when the article is laid aside.

It is found desirable to avoid sharp edges and angles as much as possible in the construction of the hook, and to close the mouth of the hook by a projection which will admit of the free movement of the lacing-cord without danger of cutting or otherwise damaging it. To form this projection, I indent the blank A at the extremity, as as *a* and *b*, the portion *a* being preferably conical, and *b* fitted to be bent over and to cover the open end of the cone, giving a smooth rounded surface on top, the advantages of which will be readily perceived. This blank may be cut out and indented at the one operation by suitable dies, thus economizing in the cost of manufacture. The part *b* being bent as shown in Fig. 3, the remainder of the hook is fashioned as indicated in Fig. 4.

At *c c* are points for securing the stud upon the article. These may be replaced by the eyelet *c'*, (shown in Figs. 5, 6, and 8,) and the hook or stud secured in the usual manner.

The inclined knob *a* closes the mouth of the hook, being held against the base part by the spring action of the upper part. When the cord is brought against this inclined knob, either for lacing or unlacing, it readily raises the spring, which permits the passage of the cord.

The conical part may be made more or less blunt, according to circumstances, and might be made in any shape so as to present a curved surface for the cord to bear against.

The cover of course has no effect upon the closing of the mouth of the stud, and, so far as that is concerned, might be omitted. It is preferred, however, not only for the more complete finish which it contributes, but because it aids in preventing the objectionable catching before alluded to. This method of forming the ball at the mouth of the hook or stud by indenting the material of the blank is economical, not only in labor required for finishing, but in material employed, and these are features of considerable importance, consider-

ing the very large numbers of lacing-hooks employed for various purposes.

Upon gloves and in like situations the lacing-cord draws upon the ordinary forms of hooks or studs in such manner as to incline them one toward the other, throwing the mouth of the stud up and the throat down, destroying the set and appearance of the glove or other article, and inconveniencing the wearer. To obviate this I bend the blank as shown in Figs. 4, 6, 7, and 8, so that the throat *d* extends below the level of the base or flat part of the stud. The lacing-cord, when properly adjusted, lies in this throat, and when strained must tend, as will readily appear, to elevate the rear of the stud, rather than depress it, as in the old forms. Consequently, the glove or article being properly laced, the several hooks will be prevented from inclining down toward each other.

Any sort of suitable material may be used in the manufacture of the improved studs or lacing-hooks.

The improvements are specially applicable to studs for use upon gloves; but obviously the studs may be employed upon shoes, corsets, and other articles, and in other situations where their peculiar characteristics may be found advantageous.

When constructed and arranged substantially in accordance with the foregoing explanations the improved device is found to admirably answer all the purposes and objects of the invention, as previously stated.

Having now fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a spring lacing-stud provided with a base having suitable attaching devices, the combination, with the spring-top, of the conical-shaped knob formed thereon, the point of said knob bearing against the base of the stud, substantially as and for the purposes set forth.

2. In a spring lacing-stud provided with a base having suitable attaching devices, the combination, with the spring-top, of the conical-shaped knob and the top or cover therefor, the said knob bearing against the base of the stud, substantially as shown and described.

3. In a lacing-stud having a spring-top and connected conical knob bearing against the base for closing the mouth of the stud, the throat for the reception of the lacing-cord, bent, substantially as shown, so as to extend below the base of the stud, and a base provided with suitable attaching devices, for the purposes and objects named.

In testimony that I claim the foregoing I have hereunto set my hand in the presence of two witnesses.

SAMUEL MONTGOMERY.

Witnesses:
BERNARD J. KELLY,
WORTH OSGOOD.