No. 875,570. PATENTED DEC. 31, 1907.

O. H. ELIEL.

SHOE LACE HOOK.

APPLICATION FILED APR. 4, 1907.

Fig. 1.

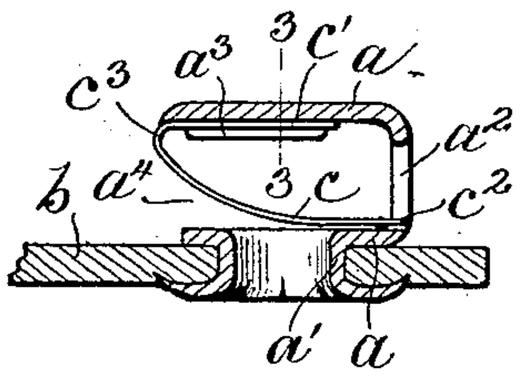


Fig. 2.

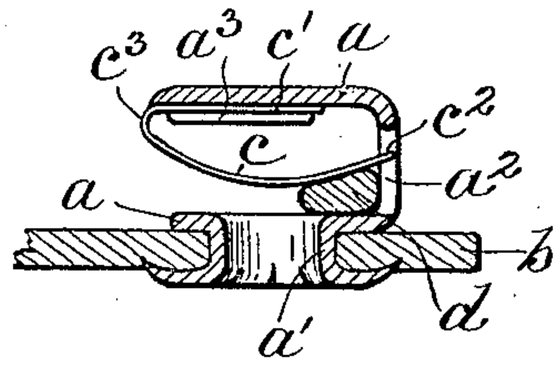


Fig. 3.

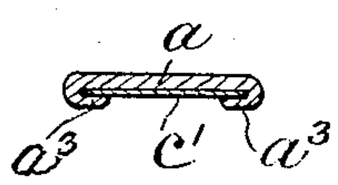
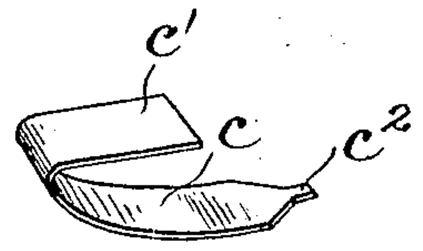


Fig. 4.



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SHOE-LACE HOOK.

No. 875,570. Specification of Letters Patent. Patented Dec. 31, 1907.

Application filed April 4, 1907. Serial No. 366,261.

To all whom it may concern:

Be it known that I, OSCAR H. ELIEL, of La Salle, in the county of Lasalle and State of Illinois, have invented certain new and useful Improvements in Shoe-Lace Hooks, of which the following is a specification.

My invention relates to improvements in hooks for securing shoe-laces in position upon shoes; and the objects of my improvement are, first, to provide a hook of the class adapted to the use mentioned with a light spring arranged to bear upon the lace when in the hook so as to hold it in when the shoe is slack-laced; second, to afford facilities for entering the shoe-lace into the hook and for releasing it therefrom; third, to arrange the spring within the hook in such a manner as to choke the opening of the hook, or the space between the point and base of the hook so that it will not catch the clothing or skirts of the wearer; and, fourth, to provide a form of device that can be cheaply made and applied to a shoe in the ordinary way. I attain these objects by the hook and spring constructed and relatively arranged as illustrated in the accompanying drawings, in which—

Figure 1 is a longitudinal central section of a hook containing my invention with a fragment of the shoe front piece, having the hook applied thereto, the lace being absent; Fig. 2, a similar view showing the lace in cross-section within the hook; Fig. 3, a detail showing a section on the line 3 3 of Fig. 2; and Fig. 4, a detail showing a detached part in perspective view.

Like reference signs marked on the drawings indicate like parts in the several views.

For the sake of clearness of illustration, the size of the parts represented in the drawings is made considerable larger than the normal size of the article.

In the drawings *a* is the hook, having its base provided with an eyelet or hollow rivet *a'* by means of which it is attached to the shoe front-piece *b*. The hook with its eyelet piece is of the ordinary form in common use, with the exception that it is provided with a slot a^2 at the rear upright part and that the sides of the upper part or hook proper are provided with reverted edges a^3. A light spring *c* is provided having a flat top *c'* which is adapted to be inserted between the body of the upper part of the hook and its reverted edges and clamped therein by suitable pressure applied for that purpose so as to hold the parts together. The lower front part of the spring is curved so that the rear part will lie flat upon the base of the hook for about half its length, more or less, from the rear forward and bear down upon the same. The rear end is provided with a tongue or narrow part c^2 adapted to play in the slot a^2. It is noted too that the spring extends outward at c^3 slightly beyond the point of the hook and then is extended on a gradual curve downward and backward to the point of its contact with the base of the hook, as seen in Fig. 1, so as to leave about half of the space between the base and top part of the hook open at the front edge of the base, as seen at a^4, Fig. 1. The lace *d* may readily enter the front part of the hook at this point and be drawn back under the spring to the position seen in Fig. 2, lifting the spring as it passes in so that the spring will press down upon the lace and hold it in when the lacing is slack. When in this position the lace may slide lengthwise in the hook under the spring which is held steady in its position during such operation by means of the tongue c^2 in the slot a^2. It is to be noted also that the spring is made so light and flexible as not only to permit the lace to be drawn into the hook, as above described, but to permit the ordinary riveting tool to be applied under the spring in the ordinary way in order to fasten the base of the hook to the front piece of the shoe. The spring also chokes the front open space of the hook proper so as to prevent the hook from catching the skirts or clothing of the wearer. The spring is also adapted to lie flat up against the top of the hook when the lace or other object forced in under the spring is of a size large enough to produce that effect. It is important too that the shoe-lace hook to be practical in operation must be not of large size and that the character of the spring and of the means for securing it in place within the hook must necessarily be such as to secure these results without materially increasing the size of the hook over what it is now, as found in common use. In such hooks the thickness or cross dimension of the lace fills about one-third, more or less, of the depth of the hook and when the shoe is slack-laced the lace is liable to fall out of or be disengaged from the hook. The spring is designed to come in contact with the base of the hook at about the middle of its depth, as seen in Fig. 1, and to spring upward at the rear somewhat more than at the middle, as seen in Fig. 2, when the lace is tightly drawn in and the

holding of the spring is consequently made such as to require a slight backward pull on the lace when slack to get it out of the hook.

The hook comprising the base, the upright and the top connected and extended around three sides of a square recess has the open side choked or partially closed at c^3 and left open at a^4 by the spring. That portion of the spring at c^3 which projects slightly beyond the point of the top and then downward and backward to the line of the top and base constitutes the choking means designed to prevent the hook from catching the skirts of the wearer; the next succeeding portion extending into the recess and down to where the spring strikes the base and leaving the opening at a^3, the means for forming the free opening for the entrance of the lace into the hook; the next portion of the spring, which lies flat upon the base, in conjunction with the base, the means for gently gripping the lace to prevent it from falling out from the position shown in Fig. 2, when slackened and allowing the lace to slide longitudinally in the hook for drawing the parts of the shoe together; and the slot a^2 in the upright and the tongue c^2 extending into the slot back of the surface of the upright on which the lace slides, the means for stopping the lace from passing back in the recess beyond the end of the spring. The drawing illustrates the best mode in which I have contemplated applying the principle.

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

1. An improved shoe-lace hook comprising a hook-body having a base provided with attaching means, an upright part, and a top part connected and extended around three sides of the hook recess, in combination with a light spring attached to the top part and projected forward slightly beyond it and then downward and backward through the recess, the shape of the recess and spring and their relative arrangement being such that one portion of the spring is adapted to choke the front upper part of the recess at the entrance, another portion to extend further down and strike the base at about the middle of the depth of the recess, and still another portion to grip the lace lightly on the base at the rear adjacent to the upright.

2. An improved shoe-lace hook comprising a base with means for attaching it to a shoe, an upright on the base and a top part on the upright extended over the base to form an open-sided recess for the lace, in combination with a light flexible spring attached to the top part and projected forward slightly beyond it and then downward and backward into and through the recess, the spring being curved to enter the recess about midway between the base and the top part, to pass downward and backward so as to strike the base at about the middle of the depth of the recess and extend from there back the rest of the way in contact with the base to a point beyond the front line of the upright.

3. An improved shoe-lace hook comprising a base with attaching means, a slotted upright on the base, a top part on the upright and extended over the base forming an open-sided recess, in combination with a spring on the top part projected forward and downward and then backward into and through the recess and into the slot in the upright, the curvature of said spring being such as to leave the front lower part of the recess open for about half its height and depth and closed for the rest of the way back to the upright.

4. An improved shoe-lace hook comprising a base part with attaching means, an upright slotted part and a top part arranged to form a hook recess open at the front, in combination with a light spring attached to the front of the top part, projected slightly forward and then on a curve downward and backward through the hook recess and into the slot of the upright part, the curvature of the spring forming a free opening for the lace at the front lower part of the hook recess and a clasp for the lace at the rear lower part of the recess.

5. An improved article of manufacture of the class mentioned, comprising a shoe-lace hook having the base provided with fastening means, an upright part provided with a slot, and a top part provided with reverted side edges, in combination with a light spring adapted to be applied under the reverted side edges and having a rear part provided with a tongue adapted to play in the slot of the upright part.

6. An article of the class mentioned, comprising a hook having a base provided with means for attaching it to the shoe, a slotted upright rear part and a top part, in combination with a light spring attached to the top part and adapted to rest on the base and play in the slot in the rear.

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