(No Model.)

G. H. PHELPS.

CATCH FOR STOCKING OR GARMENT SUPPORTERS.

No. 538,384. Patented Apr. 30, 1895.

Fig: 1.

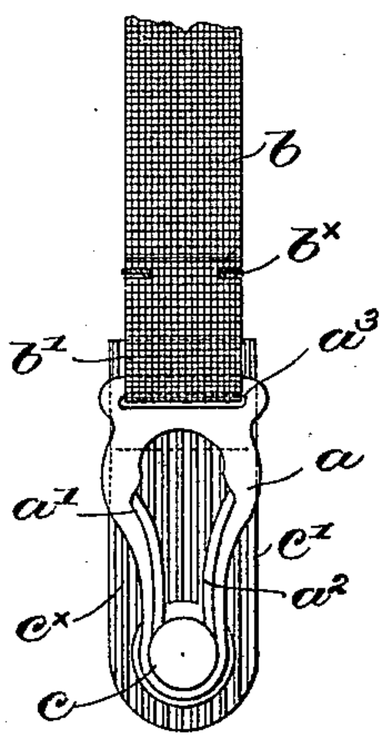


Fig: 2.

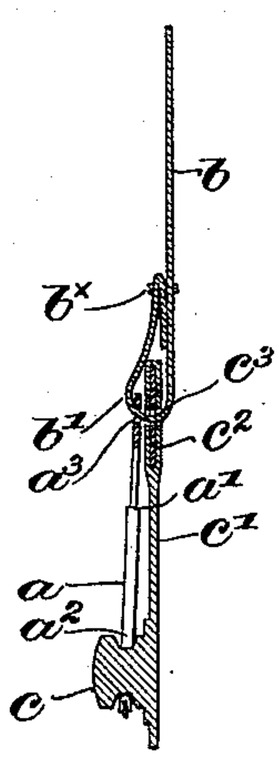


Fig: 3.

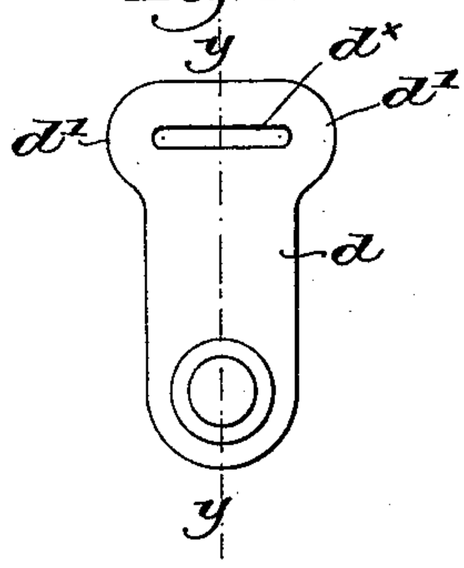
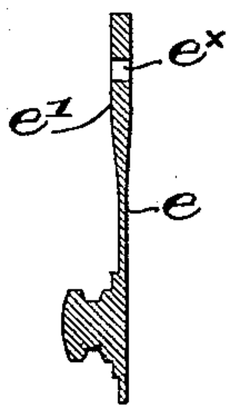


Fig: 4.



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UNITED STATES PATENT OFFICE.

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CATCH FOR STOCKING OR GARMENT SUPPORTERS.

SPECIFICATION forming part of Letters Patent No. 538,384, dated April 30, 1895.

Application filed January 23, 1895. Serial No. 535,903. (No model.)

To all whom it may concern:

Be it known that I, GEORGE H. PHELPS, of Newton, county of Middlesex, State of Massachusetts, have invented an Improvement in Catches for Stocking or Garment Supporters, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

In the construction of catches for stocking or garment supporters, so far as I am aware, the stud or headed button which is to enter the loop has been mounted or secured to a piece of webbing forming a continuation of or attached to the main sustaining web or strip, usually of textile material, and the fabric of the stocking or other garment has been held in place between the stud and the sides of the loop either by making the latter converging towards it lower end or by its lateral elasticity, or the stud shank has been made compressible, the object being to pinch the fabric between the stud and loop. It will be obvious that so long as an upward strain is exerted upon the catch the stud will be retained in place in the lower end of the loop, the garment fabric resisting such strain, but when the strain is relaxed, as by the movements of the wearer in walking, the stud tends to work up in the loop, loosening its hold upon the fabric and eventually releasing it entirely. This tendency is counteracted only by the degree of tightness with which the stud enters the loop, and the tighter the fit the greater the liability to cut the fabric. The nature of the stud support is such that it has no function whatever in keeping the stud in the lower end of the loop, no matter what may be the construction of the loop or stud, and with fine fabrics, such as silk, it is difficult to secure a reliable hold thereon without injury to it.

This invention has for its object the production of a novel catch for use with stocking or garment supporters, whereby the stud support by its inherent characteristics tends to maintain the stud in the lower end of the rigid loop whether strain is put upon the catch or not, the catch being particularly well adapted for use with fine fabrics. The stud support is also connected to the sustaining web in a simple and effective manner, obviating the use of stitching or other fastening through the support.

My improved catch comprehends a rigid stud-receiving loop, a stud, and a resilient support therefor to normally maintain the stud in the lower or outer end of the loop, substantially as will be described.

Figure 1 in elevation shows a part of a stocking or garment supporter with one form of my improved catch applied thereto. Fig. 2 is a section thereof on the line $x\,x$, Fig. 1. Fig. 3 in elevation shows a modified form of stud-support, and Fig. 4 is a sectional view of yet another modification.

The rigid loop a, composed of stiff wire, sheet metal, or other sufficiently rigid material, has therein a slot enlarged at its upper or inner end, as at a', to conveniently receive the fabric lying on and about the stud to be described, and narrowed at its outer end, at a^2, to pinch the fabric between its sides and the stud.

The loop a is and may be of any usual shape common to stocking or garment supporters of this class, and in practice its inner end, slotted at a^3, will be attached to a suitable web b, herein shown as by a bight b' of the web passed through the slot.

The stud c may be of metal or other suitable material, or it may have a non-metallic yielding surface, or I may form it entirely of vulcanized rubber, preferably by molding it to form an integral part of the resilient support c', of preferably stiffer india rubber or some other material which will yield or can be bent in the direction of its length, but which has the inherent tendency to straighten out and remain extended longitudinally when freed from bending pressure, as shown in Figs. 1 and 2, such tendency to straighten out of itself keeping the stud at the bottom of the slot where it belongs, and resisting the ordinary upward push of the material when the strain upon the web is relaxed, while the support may readily be bent to render easy the insertion of the stud in the loop, or to withdraw it therefrom.

Some fine fabrics, such as silk, are very apt to creep when the strain on the loop is relaxed, and the stud is apt to be thereby moved into the wide part of the slot and released, but by making the support somewhat stiff longitudi-

nally, as described, this creeping is obviated completely.

The shank of the stud *c*, when made entirely of rubber, is made preferably quite thick, giving sufficient body to hold the fabric firmly in the loop, while the friction of the soft rubber takes such a firm hold on the fabric of the stocking or other garment that the latter will not slip. The pinching of the material between the rigid loop and the rubber stud in such instance prevents the cutting of the most delicate fabric.

As shown in Fig. 1, the support c' is corrugated or ribbed longitudinally at $c^{\times}$, thereby increasing its tendency to remain extended.

I preferably reinforce the inner end of the support adjacent its point of attachment to the web *b*, by preferably molding therein a piece of sheet metel c^2, Fig. 2, and a transverse slot c^3 is made in the support through the metal reinforce, the bight b' of the web being passed therethrough and secured upon the main portion of the web in any suitable manner, as by stitches $b^{\times}$, or other suitable fastenings, Figs. 1 and 2. The reinforcing of the support adjacent to the slot prevents accidental rupture thereat, and greatly increases its strength.

In Fig. 3, I have shown the support *d* reinforced by widening it laterally at d', the slot $d^{\times}$ being made in the widened portion, whereby the amount of material between the ends of the slot and the edges of the support is increased and strengthened.

In Fig. 4, the support *e* is thickened at e', and the slot $e^{\times}$ is made in the thickened portion, to strengthen the support at its inner end, and if desired the support may be both thickened and increased in width, combining the constructions shown in Figs. 3 and 4. The bight b' of the web is passed through the slot a' of the loop *a*, the latter resting on the support *c*, as it were, and one is entirely free to be moved independently of the other, facilitating the insertion or withdrawal of the stud from the loop.

The construction herein shown is very simple and inexpensive, while it is strong and durable, and free from the objections found in other catches which have heretofore been devised.

In another application filed by me, I provided the stud with a metallic post or pin to impart strength and rigidity thereto, and such construction is claimed therein.

I claim—

1. A garment supporting catch, comprehending a rigid stud receiving loop, a stud, and a resilient support therefor, to normally maintain the stud in the outer end of the loop, substantially as described.

2. A garment supporting catch, comprehending a rigid stud-receiving loop, a stud, a resilient support therefor transversely slotted at its upper end and to normally maintain the stud in the outer end of the loop, and a web attached to the loop and having its end passed through the slot in the support, substantially as described.

3. A garment supporting catch, comprehending a resilient support provided with a stud at one end and reinforced at the other end, and a rigid loop to embrace said stud, said support being slotted transversely at its reinforced portion to receive therethrough the bight of a sustaining web, substantially as described.

4. A garment supporting catch, comprehending a resilient support of india rubber provided with an integral stud, and a rigid loop to embrace said stud, substantially as described.

5. A garment supporting catch, comprehending a resilient longitudinally corrugated support of india-rubber, provided with a stud at one end, and a rigid loop to embrace the stud, substantially as described.

6. A garment supporting catch, comprehending a rigid stud-receiving loop transversely slotted at its upper end, a stud, a resilient support therefor transversely slotted at its upper end and to normally maintain the stud in the outer end of the loop, and a sustaining web having its end passed through the slots in the loop and support and upturned to form a bight, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GEORGE H. PHELPS.

Witnesses:

JOHN C. EDWARDS,

AUGUSTA E. DEAN.