J. C. HOWELLS.

Hooks and Eyes for Wearing-Apparel.

No. 169,267. Patented Oct. 26, 1875.

Fig. 1.

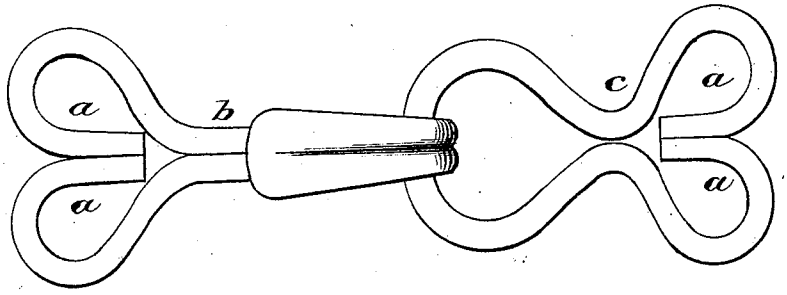


Fig. 3.

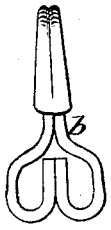


Fig. 4.

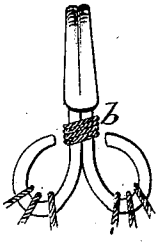


Fig. 5.

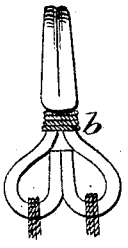


Fig. 6.

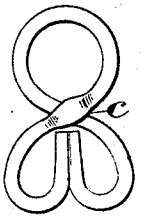
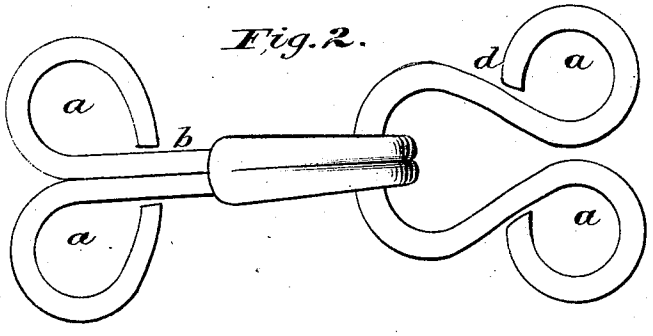


Fig. 2.



Witnesses.

Isaac N. Eaton.

Charles F. Bojer.

Inventor.

Joseph Charles Howells

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UNITED STATES PATENT OFFICE.

JOSEPH C. HOWELLS, OF NEW YORK, N. Y.

IMPROVEMENT IN HOOKS AND EYES FOR WEARING APPAREL.

Specification forming part of Letters Patent No. **169,267**, dated October 26, 1875; application filed November 22, 1873.

To all whom it may concern:

Be it known that I, JOSEPH CHARLES HOWELLS, of the city and county and State of New York, have invented a new and useful Improvement in the Construction of Hooks and Eyes for Wearing Apparel and other uses, of which the following is a specification illustrated by the drawings, which are referred to herein by the letters and figures marked thereon.

My invention consists in forming the hook or eye by bending or curving the wire of which it is made so as to bring it into contact at the neck, and inclose its ends within the body and between the loops, to which they form the dividing-line.

By reference to the drawing, Figure 2, it will be seen that the loops *a a a a* of the hook and eye in common use, are formed by curving the ends of the wire outwardly until they touch, or nearly so, the wire of which they are made. These ends being sharp and rough the thread that secures the hook or eye to the fabric is very liable to be cut or worn away by them when subjected to a strain, or else the stitches, by repeated and continued straining, gather at the bottom of the loops, causing the hook or eye to swing and dangle about, so as to make it difficult to hook them together, and detracting greatly from the neatness and security they are expected to afford. In time the wire itself begins to straighten until the hook or eye is pulled quite out of shape, as may be seen in the drawing, Fig. 4.

It is usual to stitch the shank or stem of the hook, above the loops, down closely to the fabric; but the eye, as commonly formed, will not admit of this being done, owing to its extreme width at point. (See Fig. 2.) My improved construction of the eye gives it all the advantages of the hook in this respect, as can readily be seen by reference to the drawings at C, Fig. 1.

The construction of hooks and eyes upon my improved mode obviates the defects above enumerated, and secures advantages never before realized; for it presents an unbroken line of wire on their outer circumference thereby avoiding the cutting or wearing of the thread by the ends of the wire; insures the retention of the stitches in their appropriate place, thus affording neatness and security to the garment when in use; and, while they consume no more stock in their construction than the ordinary hook and eye, they do, by virtue of their peculiar form, guarantee greater stability and firmness, so much so as to admit of the use of an inferior grade of wire in their make up, with equally satisfactory results as regards wear and tear; for, in addition to the stitches remaining intact, and so contributing to their firmness, the ends of the wire, being parallel to and touching each other, do, when the hook or eye is subjected to a strain, resist the tendency of each to straighten, thus affording mutual support.

Fig. 6 is a modification in the construction of my improved eye, avoiding the sharp curves of the wire forming the neck C, as seen in Fig. 1, by crossing at that point, the wire at the point of intersection being flattened.

What I claim, and desire to secure by Letters Patent, is—

A hook or an eye formed of wire, having its portions in close proximity or contact at the neck, and from thence to form loops bulging outward, and returned upon themselves, so as to bring the ends within the circumference of the body, substantially as described.

JOSEPH CHARLES HOWELLS.

Witnesses:
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