No. 716,404.

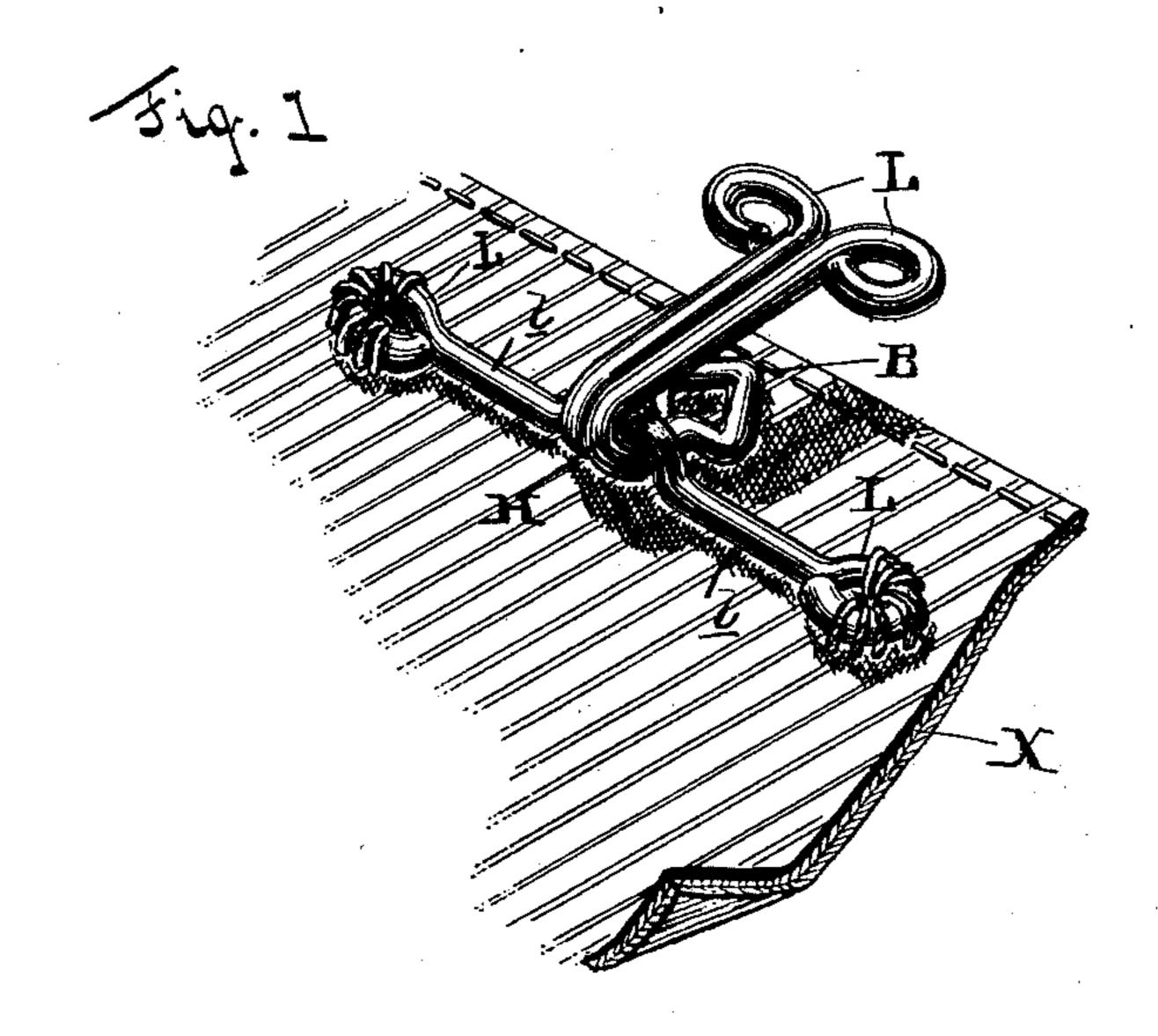
Patented Dec. 23, 1902.

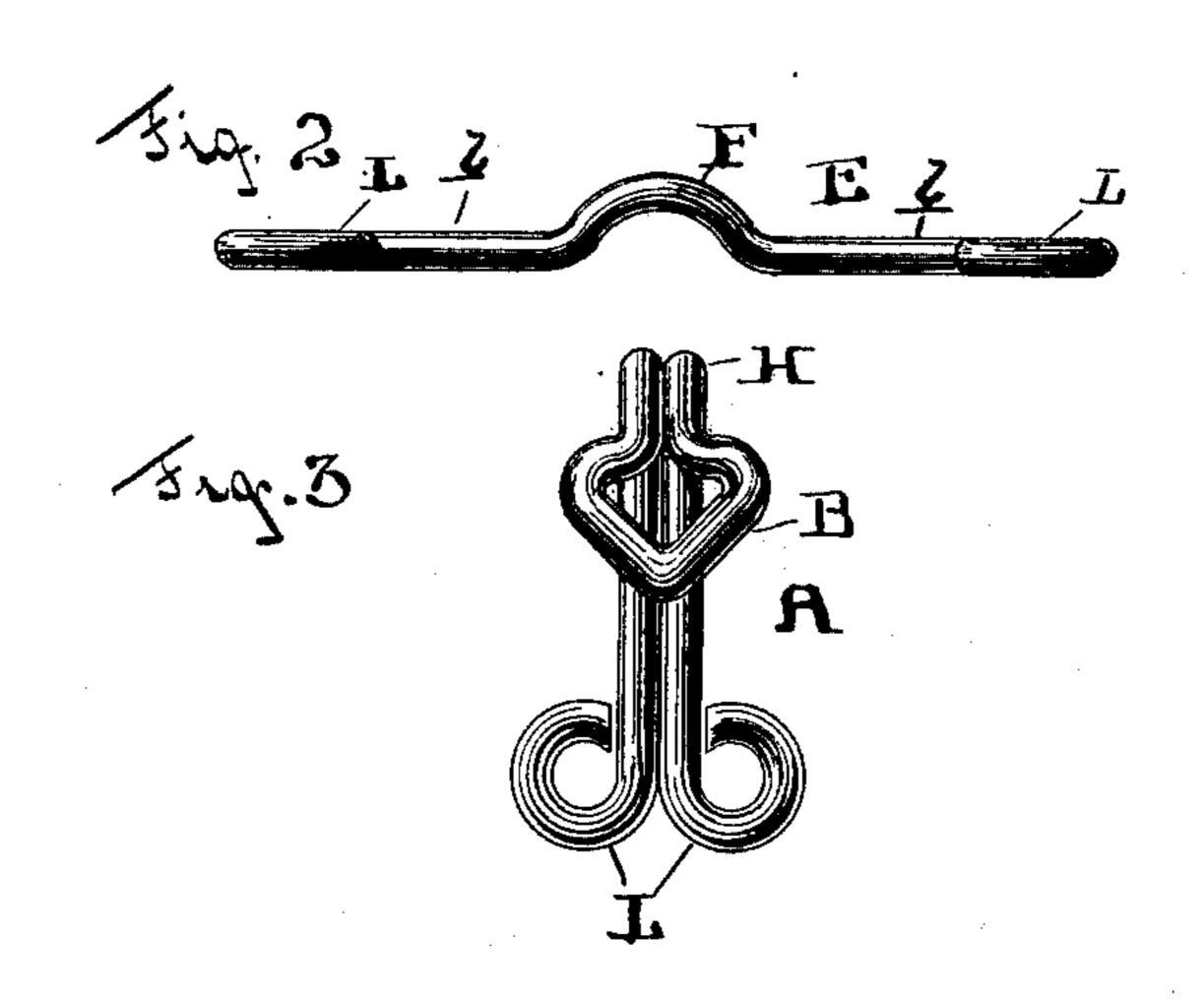
## A. J. GASTREN & J. G. CORTELYOU.

HOOK AND EYE.

(Application filed Aug. 15, 1898.)

(No Model.)





Witnesses Jeo. S. Way. Jr. A. E. Marelague stice 5. Gaskren and 5. Ge Corkelyou 30 Attorney,

## UNITED STATES PATENT OFFICE.

ALICE J. GASTREN AND JAMES G. CORTELYOU, OF LOS ANGELES, CALIFORNIA.

## HOOK AND EYE.

SPECIFICATION forming part of Letters Patent No. 716,404, dated December 23, 1902.

Application filed August 15, 1898. Serial No. 688,643. (No model.)

To all whom it may concern:

Be it known that we, ALICE J. GASTREN and JAMES G. CORTELYOU, citizens of the United States, residing at Los Angeles, in the county of Los Angeles, State of California, have invented new and useful Improvements in Hooks and Eyes, of which the following is a specification.

The object of our invention is to provide a no hook and eye that will not accidentally come unfastened and which are easily fastened and unfastened; and the invention lies in the novel features of construction set forth in the following specification and claims and illustrated in the accompanying drawings, in which the parts are shown enlarged.

In the drawings, Figure 1 is a perspective view of the hook and eye attached; and Figs. 2 and 3 are elevational views, respectively, of the hook and eye.

Referring more specifically to the drawings, the letter A indicates the hook as a whole, and E the eye. The hook A and eye E are each formed from a single piece of wire, and the 25 ends are bent to form the usual loops L for attaching them to the garment. The shank portion of the hook A consists of two straight parallel members in contact, or nearly so, with each other. The central portion is bent to 30 form a hook H, which has a pear-shaped head or bill B, having a narrow point and broadening out toward the hook H and then contracting rather sharply to the hook part.

The eye E is constructed of a single piece 35 of wire, the ends of which are bent to form attaching-loops L. The distance between the attaching-loops is somewhat extended to facilitate the engagement of the hook therewith, which will be found of great advantage 40 in securing the shoulder, side, and back portions of garments which cannot be seen by the user, inasmuch as heretofore in the employment of eyes of the narrow type great inconvenience resulted from the accuracy re-45 quired in registering the nose of the hook therewith. A portion of the wire l adjacent to each of the attaching-loops L lies in the same horizontal plane as the loops and parallel with the surface of the material X, to 50 to which it is secured. The central portion

is bent upward above the plane of the attaching-loops to form a hump F with sides sloping from the center of the eye, so that the bill of the hook will not catch on the sides of the eye as it passes thereunder when engaging 55 the eye, said sloping sides cooperating with the pear-shaped bill to cause the bill to ride downwardly and beneath the eye and serving to center the neck of the hook when the bill has passed thereunder. This hump rises in 60 a vertical plane which is at right angles to the horizontal plane in which the attachingloops lie. The width of the lower and wider portion of the hump is less than the width of the broadest part of the bill, so that by rea- 65 son of the opposite portions l l of the eye directly overlying the material (see Fig. 1) it will be necessary for the broad part of the bill to depress a portion of the material to which the eye is attached in its passage under the eye 70 E. As soon as the broad part of the bill of the hook has passed under the eye the resiliency of the material causes the narrow neck H to enter the hump F of the eye, and the hook and eye are then held securely against 75 accidental unfastening from the fact that the broad part of the bill will come in contact with that part of the eye that lies in the same plane as the attaching-loops of the eye and will not pass thereunder until enough force 80 has been applied thereto to overcome the resiliency of the material to which the eye is attached. The portions l adjacent to the hump F and the cloth to which the eye is attached form a guard against the accidental 85 separation of the hook and eye.

Having described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In combination with a hook having a 90 widened bill, an eye having a raised portion intermediate of its ends, the widest part of said raised portion of the eye being of less width than the widest part of the bill and adapted to receive the neck of the hook, said 95 eye having portions l, l adjoining said raised portion for securing the same to a fabric or the like and said portions l, l being arranged to lie flat upon the surface of said fabric in the plane of the bill of the hook when the 100

hook is in engaged position with the eye, and to abut said bill to prevent accidental withdrawal of the same, substantially as described.

2. An eye of the character described having 5 a raised portion intermediate of its ends, with sides sloping downwardly and outwardly, straight extensions l, l adjoining said raised portion and in alinement therewith, means at the outer ends of said extensions lying in the 10 plane of the same for securing the eye to a fabric or the like with the extensions l, l flat upon the surface of said fabric, and a hook having a pear-shaped bill the widest part of which is of greater width than the widest part 15 of said raised portion, the neck of said hook being adapted to fit into the raised portion of the eye when the bill of the hook is inserted beneath the extensions l, l and forced upwardly by the fabric into position to abut the 20 eye to prevent withdrawal of the hook from engagement therewith; substantially as described.

3. A fastener comprising a hook having a

widened bill, and an eye adapted to be engaged by the bill and having a raised portion intermediate of its ends, the widest portion of which is of less width than the widest portion of the bill and adapted to receive the neck of the hook, said eye also having alined straight extensions adjoining said raised portion, a resilient member directly underlying the straight extensions of the eye and adapted to retain the neck of the hook in the raised portion of the eye when the same has been engaged therewith, and means at the outer 35 ends of the eye securing the same to the resilient member; substantially as described.

In witness that we claim the foregoing we have hereunto subscribed our names, this 8th day of August, 1898, at Los Angeles, Cali- 40

fornia.

ALICE J. GASTREN. JAMES G. CORTELYOU.

Witnesses:

HENRY T. HAZARD, A. D. ANDREWS.