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M. J. KEANE.
HOOK AND EYE OR THE LIKE.
APPLICATION FILED AUG. 4, 1906.

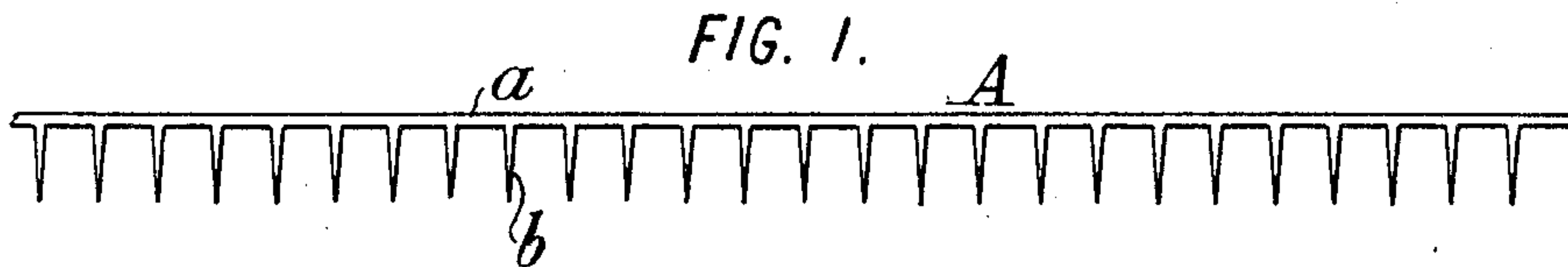


FIG. 2.

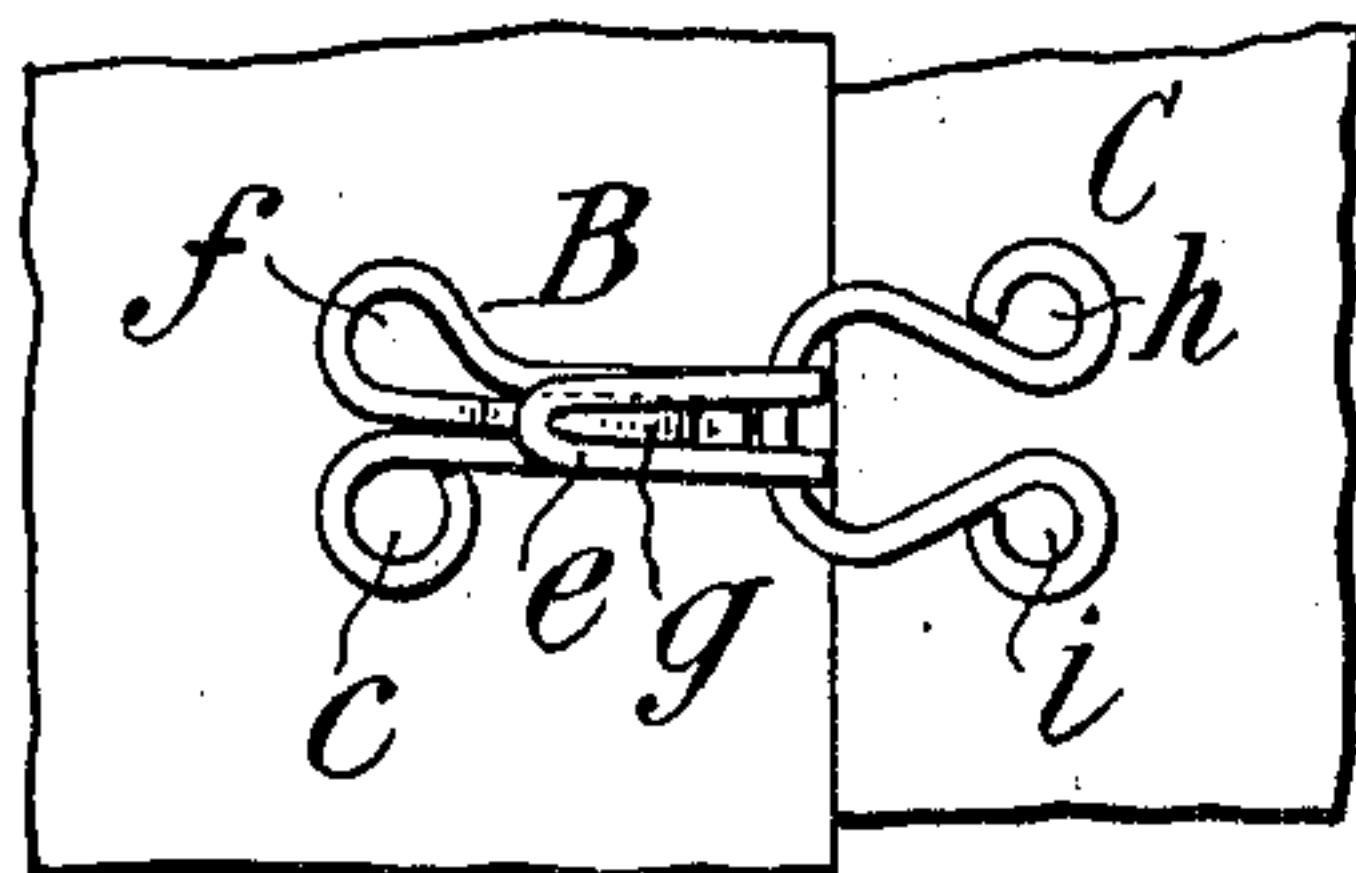


FIG. 3.

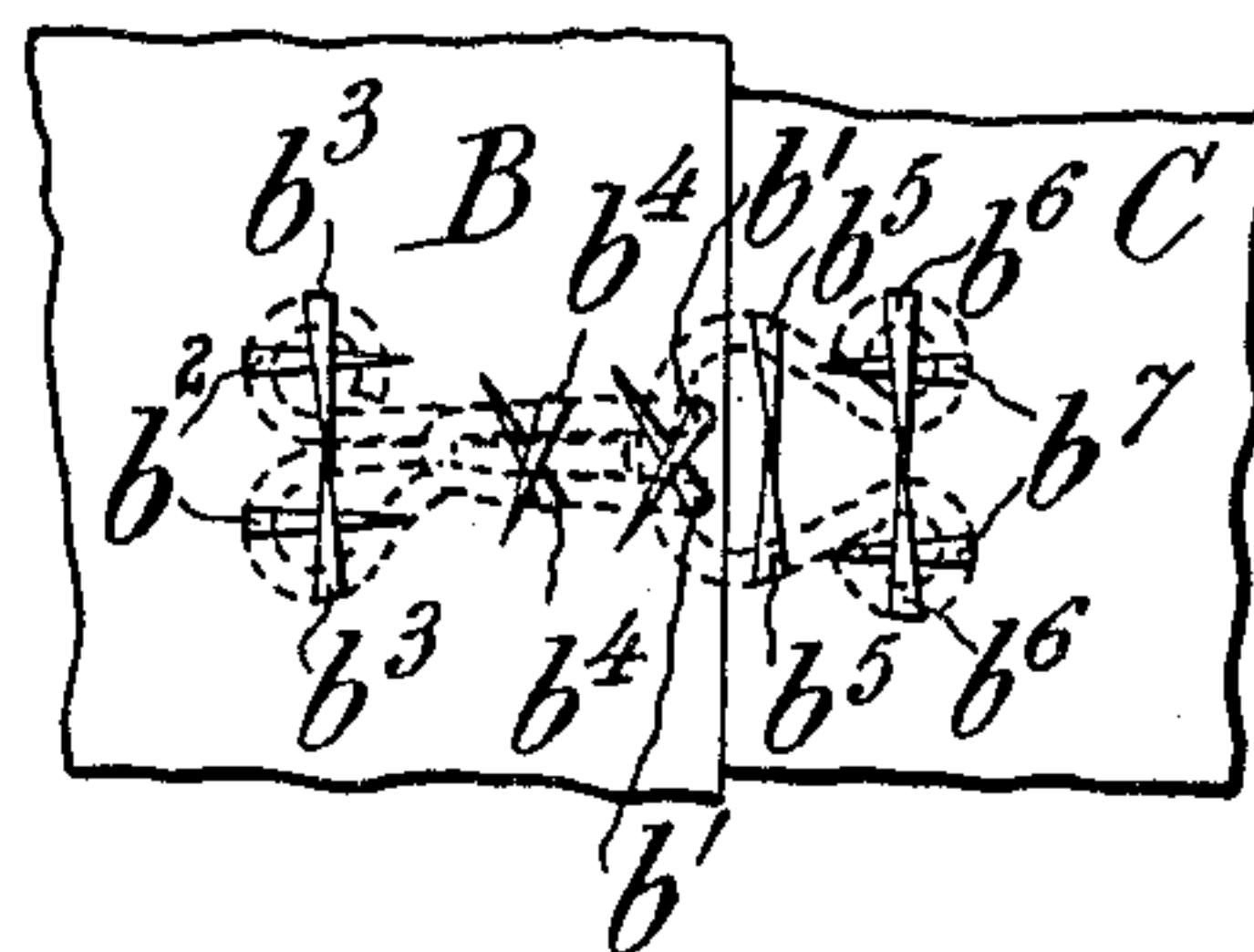


FIG. 4.

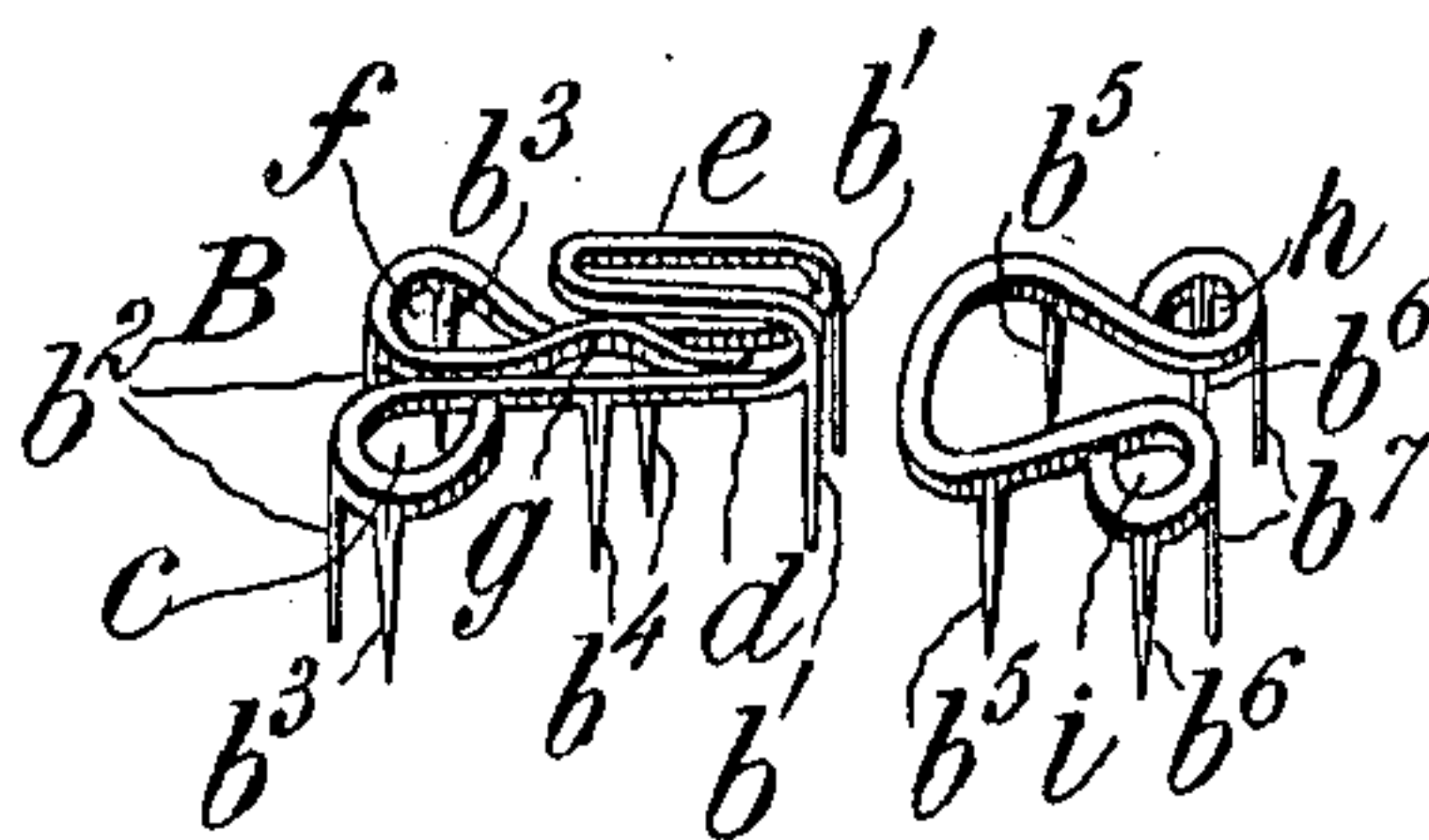


FIG. 5.

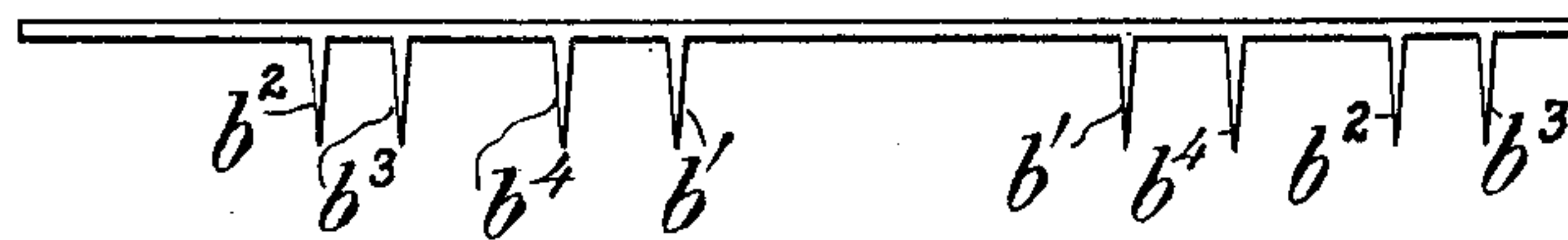
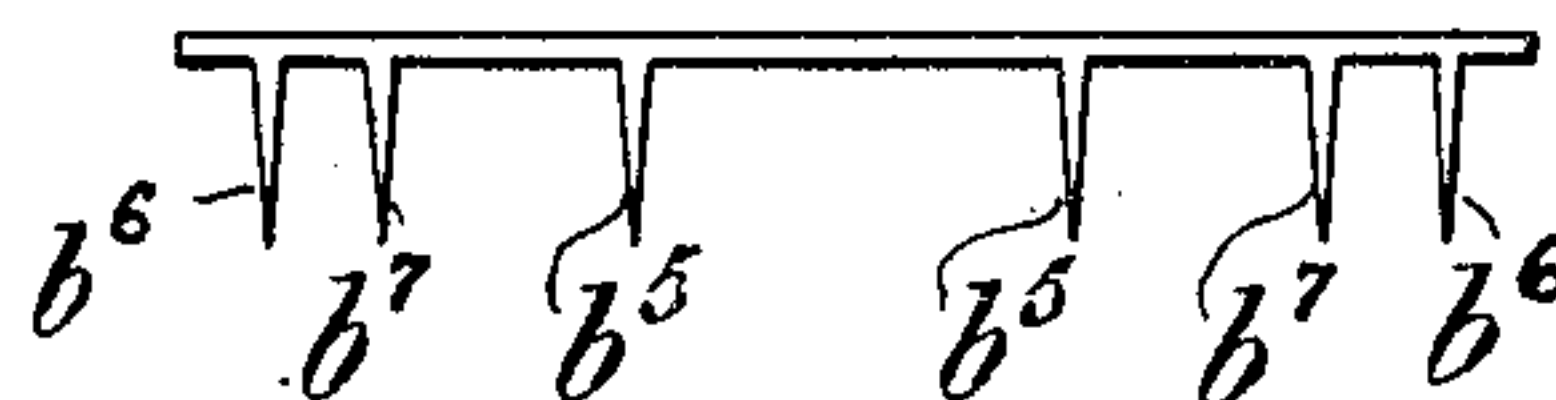


FIG. 6.



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UNITED STATES PATENT OFFICE.

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HOOK AND EYE OR THE LIKE.

No. 871,413.

Specification of Letters Patent.

Patented Nov. 19, 1907.

Application filed August 4, 1906. Serial No. 329,194.

To all whom it may concern:

Be it known that I, MARY J. KEANE, a subject of the King of Great Britain, residing at the borough of Manhattan, New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Hooks and Eyes or the Like, of which the following is a specification.

This invention relates generally to various articles which are adapted to be attached to fabrics or the like, and is especially useful as applied to hooks and eyes.

The invention introduces a new article of manufacture, which comprises a wire or metal strip having a series of integral flexible prongs which extend angularly from the sides thereof. Such metal strip can be utilized in the manufacture of various articles, such, for instance, as hooks, eyes, button fasteners, and other fastening devices, etc.

Referring to the accompanying drawings, which illustrate my invention,—Figure 1 is a side view of a short length of wire or strip embodying my invention. Fig. 2 is a plan of a hook and eye formed of the wire or strip illustrated in Fig. 1. Fig. 3 is a bottom view of Fig. 2. Fig. 4 is a perspective view of the hook and eye. Figs. 5 and 6 are side views of sections of wire or strip used in forming the hook and eye respectively.

Referring first to Fig. 1 of the drawings, let A indicate a piece of wire or strip formed in accordance with the present invention. Such wire or strip comprises, as shown, a body portion *a*, which is formed with a series of integral prongs *b* which extend angularly therefrom, the entire series of prongs being arranged on one side of the wire or strip, as shown. The body portion *a* may be of any desired cross-section, and the prongs *b* may be of any desired proportions. The prongs may be spaced apart at regular intervals, or may be specially spaced to conform to the particular article for which the wire or strip is used. The wire or strip may be formed in any suitable manner, as by stamping, pressing, or otherwise.

As thus constructed the wire or strip is susceptible of use in many different ways, as in the manufacture of button fasteners, hooks and eyes, and in fact any devices which are adapted to be applied to a fabric or the like. It is particularly adapted, however, to the manufacture of hooks and eyes, and by utilizing it in this connection I am

enabled to provide a novel form of hook and eye, the preferred form of which is illustrated in Figs. 2 to 6. Referring to these figures, let B indicate the hook, and C the eye, each of which is formed of a wire or strip of the general proportions shown in Fig. 1. The hook B is formed of a single length of wire, as shown, being bent into an eyelet *c* at the rear of the hook and thence forwardly to the bend *d* of the bill of the hook, and thence rearwardly and again forwardly to form the bill *e*; from this point it is bent rearwardly and curved to form the eyelet *f*, and then again forwardly to form the hump *g* between the two sides of the hook, it being continued to a point near the bend *d*, where the end is confined.

In forming the hook the wire or strip is preferably so bent that the prongs *b* extend downwardly from the base of the hook, as shown. I preferably arrange two prongs *b'* *b'* at the bend of the bill of the hook, so that the latter may be fastened to the fabric at this point, and I preferably also arrange several prongs, as *b*² *b*³, at the rear of the hook, so that they may extend across the under side of the eyelets *c* *f*, when they are bent transversely of the hook after insertion in the cloth. The prongs *b*² in the construction shown extend lengthwise of the hook, and the prongs *b*³ transversely thereof. Between the front and rear of the hook I preferably arrange a pair of prongs *b*⁴ which are also designed to be bent transversely of the hook. After the application of the hook to the fabric the several prongs assume the positions shown in Fig. 3. The hook may be formed of a wire or strip in which the prongs are regularly spaced apart, the superfluous prongs being cut off during the process of manufacture, but preferably I provide a wire or strip having a special spacing of the prongs, so that they assume their proper positions when the hook is bent to shape, such wire or strip being shown in Fig. 5. Such wire or strip may be prepared in continuous pieces, a suitable length for each hook being severed from the piece during the process of manufacture.

The eye C is formed in a similar manner to the hook B, and is preferably provided with prongs *b*⁵ *b*⁵ at its front, and prongs *b*⁶ *b*⁷ at its sides and rear respectively. The wire or strip forming the eye is preferably bent to form eyelets *h* *i*, as shown. The positions assumed by such prongs when bent up, is

shown in Fig. 3. The formation of wire which is preferably used for the manufacture of the eye is illustrated in Fig. 6.

The particular shape of the hook and eye is of course not essential to the invention, any formation being permissible so long as such hook and eye are constructed of wire having integral prongs. I prefer the construction shown, however, for the reason that they are mechanically fastened to the fabric at all desirable points, so that they are not liable to bend in use or to tear the fabric. Other articles of this character may be constructed similarly to the hook and eye just described, and may be provided with any suitable number of prongs, spaced apart in any desired way.

I claim as my invention:—

1. A hook or the like, formed of a bent strip having a multiplicity of integral flexible prongs, all of which extend in the same direction between the ends of the strip.

2. A hook or the like, formed of a bent strip, having a multiplicity of flexible prongs formed integrally therewith, such prongs being extended in the same direction from one side of the strip between the ends thereof.

3. A hook formed of a bent strip having integral flexible prongs, arranged at the

front of the hook near the bend of its bill, and at the rear of the hook on each side thereof, all of said prongs extending from the strip in the same direction.

4. As a new article of manufacture, a flexible strip having a series of integral flexible prongs, all extending in the same direction and irregularly spaced for the purposes set forth.

5. As a new article of manufacture, a flexible strip having a series of integral flexible prongs all extending in the same direction and irregularly spaced to leave a selected portion free from prongs when the strip is bent to form a hook.

6. As a new article of manufacture, a flexible wire having a series of integral flexible prongs all extending in the same direction and irregularly spaced to leave a selected portion free from prongs when the wire is bent to form an eye.

Signed at East Hampton in the county of Suffolk and State of New York this 30th day of July, A. D. 1906.

MARY J. KEANE.

Witnesses:

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NED DAYTON.