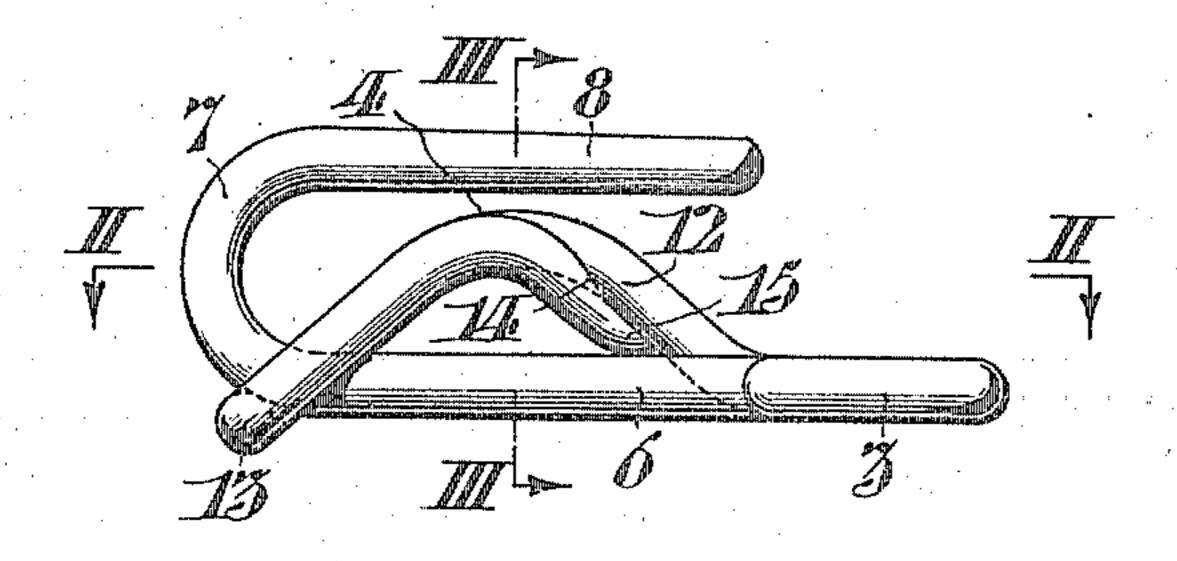
## F. E. DE LONG. GARMENT HOOK. APPLICATION FILED MAR. 22, 1909.

947,772.

Patented Jan. 25, 1910.

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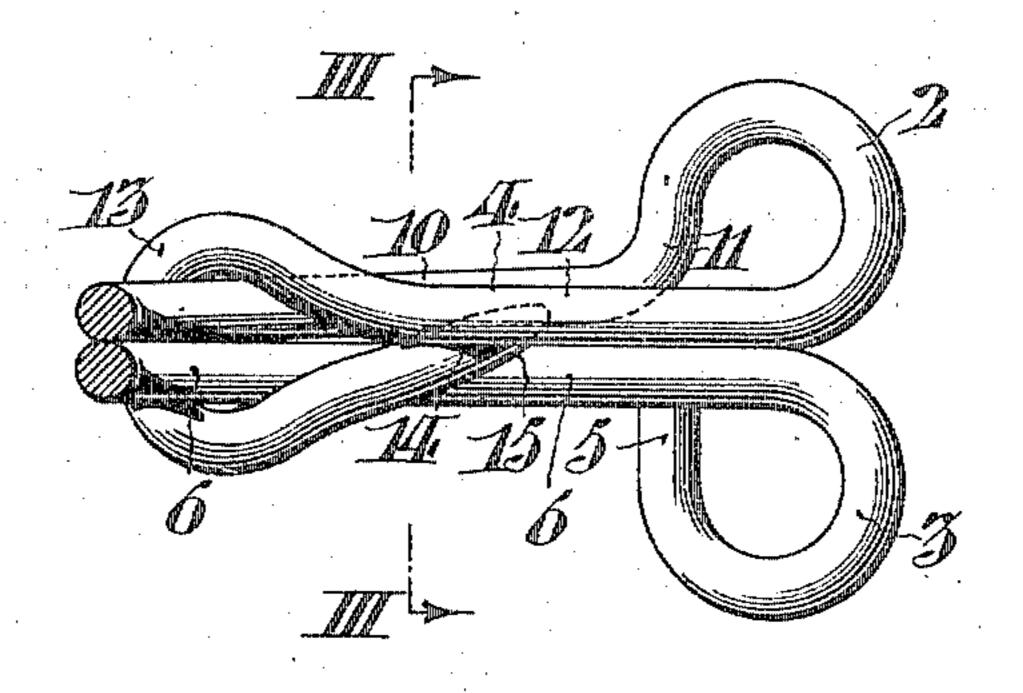
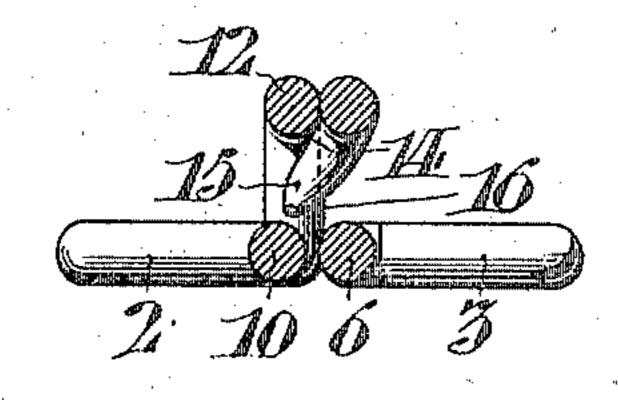


FIG M



WITNESSES

John G. Bergner. James 26 Bell INVENTOR:
Frank E. De Long.
By Muy Paul

## UNITED STATES PATENT OFFICE.

FRANK E. DE LONG, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO THOMAS DE Q. RICHARDSON, OF GERMANTOWN, PHILADELPHIA, PENNSYLVANIA.

GARMENT-HOOK.

947,772.

Specification of Letters Patent.

Patented Jan. 25, 1910.

Application filed March 22, 1909. Serial No. 484,939.

To all whom it may concern:

Be it known that I, Frank E. De Long, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a certain new and useful Improvement in Garment-Hooks, of which the following is a specification, reference being had

to the accompanying drawings.

My present invention is an improvement upon that set forth in Letters Patent No. 864,231, granted to me under date of August 27th, 1907, and has for its object the disposition of the ends of the wire from which hooks of this character are formed in such manner as to present no protruding part which would be objectionable under the conditions of use. Hooks of the general type described in my said former patent, are usually employed in connection with loopeyes of wire, but, since these are in common use and may be of any character, I have not deemed it necessary to illustrate the same.

In the accompanying drawing, Figure I, represents a side elevation of the hook. Fig. 25 II, is a view, partly in section on the line II, II, of Fig. I, and partly in plan showing the parts as exposed by removal of the bill. Fig. III, is a transverse section on the line

III, III, of Figs. I, and II.

The general type of the hook is of the wellknown character, comprising a bill, shank and thread eyes. Combined with these features is a raised element 4, (sometimes called a "hump"), and located between the shank 35 and the bill in such relation as to permit the passage of the loop eye, under definite and positive pressure, directed lengthwise with the shank, but to prevent accidental disengagement of the loop eye under ordinary cir-40 cumstances. These features being well understood need not be further described. In forming hooks of this character from a single piece of wire, it is found that serious objections may arise from exposure of the free 45 end of the wire particularly with relation to the raised element or hump. Any projection of such end in certain regions is liable to catch in different objects, such as the loop eye itself, or portions of the garment or 50 threads, and the tendency is to exaggerate the projection so that it may become very

The object of the present invention is to obviate the difficulty just referred to.

objectionable.

In order to indicate the exact character of 55. the structure, it is most convenient to trace the course of the wire, commencing at one thread eye, which comprises one terminal point of the wire. The wire commences at 5, in the inner region of the thread eye 3, 60 and after forming such thread eye is prolonged in a straight direction as shown at 6, to form one-half portion of the shank. It is then bent upwardly to form one portion 7, of the bight of the hook, and then forms 65 one portion 8, of the bill, returning to form the other portion of said bill, and of the bight corresponding to 7, and being prolonged in a straight direction as indicated at 10, to form the other portion of the shank. 70 It is then bent abruptly outward at 11, and returned to form the thread eye 2, from the inner portion of which it rises as shown at 12, to form one portion of the hump 4, and again descending, is bent outward and re- 75 turned to form the loop 13, which encircles the shank and rises beneath the bill at 14, to form the other portion of the hump 4, after which it descends into contact with the shank, the free extremity 15, being carried 80 in beneath the rise 12 (see Fig. III), of the other portion of the hump, and the end 16, being pointed and beveled, so that it is completely concealed beneath and protected by the companion member of the hump ele-85 ment.

Having thus described my invention, I claim:—

A garment hook formed of a single continuous piece of wire, comprising thread 90 eyes; a shank; a bill; and a raised portion intermediate between said shank and said bill, said raised portion being provided with a loop which embraces the lower portion of the shank, one terminal of said wire being 95 arranged at a thread eye, and the other terminal being tapered and bent laterally to lie wholly beneath the wire which constitutes one side of the aforesaid raised portion.

In testimony whereof, I have hereunto 100 signed my name, at Philadelphia, Pennsylvania, this nineteenth day of March 1909.

FRANK E. DE LONG.

Witnesses:

JAMES H. BELL,

E. L. FULLERTON.