

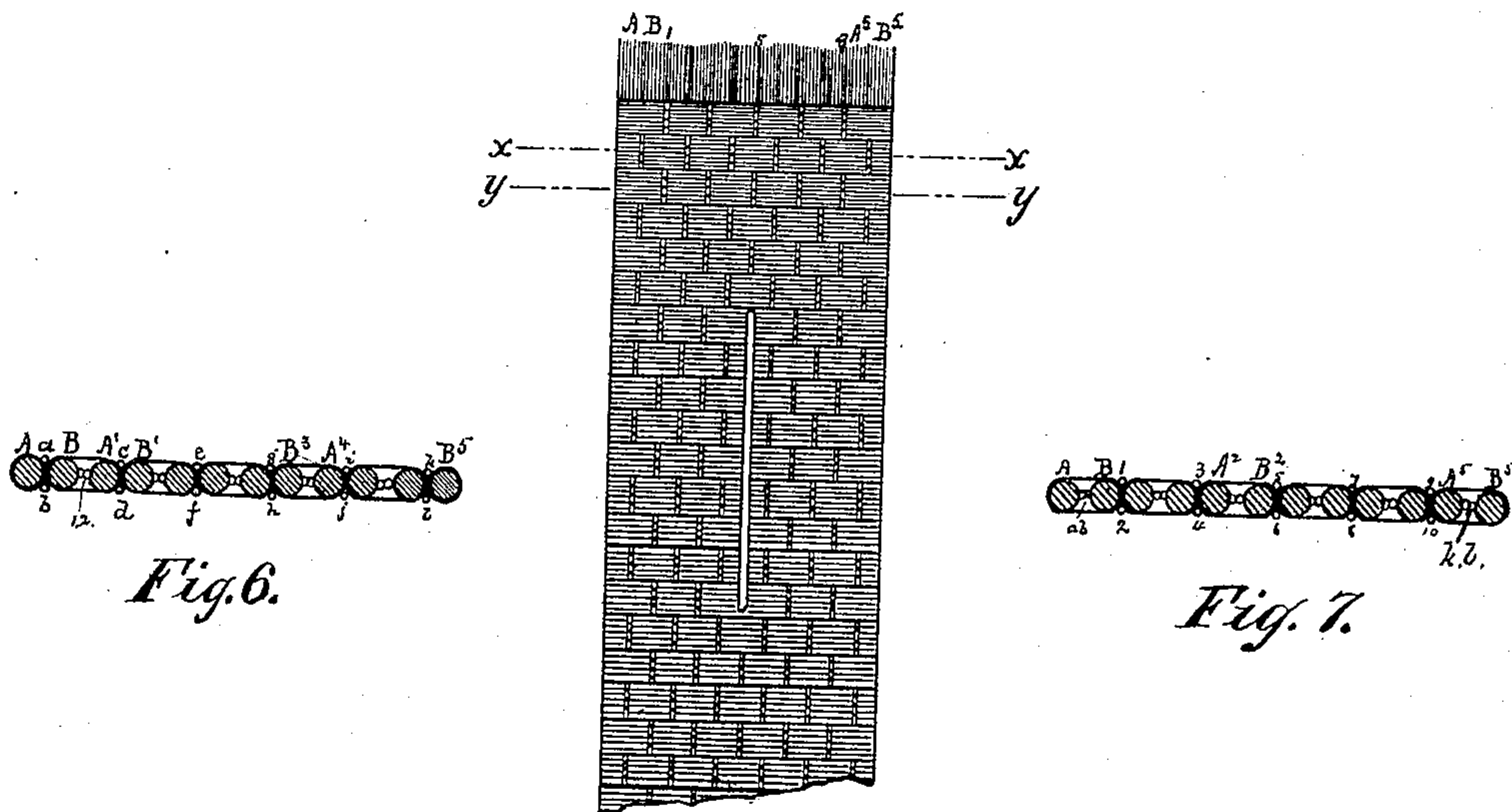
(No Model.)

S. H. BALDWIN

FABRIC.

No. 266,266.

Patented Oct. 24, 1882.



# UNITED STATES PATENT OFFICE

STEPHEN H. BALDWIN, OF CHELSEA, ASSIGNOR OF ONE-HALF TO THE  
BOSTON ELASTIC FABRIC COMPANY, OF BOSTON, MASSACHUSETTS.

## FABRIC.

SPECIFICATION forming part of Letters Patent No. 266,266, dated October 24, 1882.

Application filed May 13, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, STEPHEN H. BALDWIN, of Chelsea, in the county of Suffolk and State of Massachusetts, have invented a new and useful Fabric, of which the following is a specification.

My new fabric is designed especially for suspender-ends, but may of course be applied to other uses.

In the drawings, Figure 1 is an enlarged view of a short strip of my fabric with a button-hole woven in it. Figs. 2, 3, 4, and 5 are diagrams illustrating the method of weaving. Fig. 6 is a cross-section on line  $xx$  of Fig. 1, and Fig. 7 on line  $yy$  of Fig. 1.

The warp-threads are of two classes. One class, which I will call the "main warp-threads," are wholly covered by the filling, and consequently may be of the proper strength and size for suspender-ends, and yet be of low cost. The other class of warps, which I will call the "covering-warps," are woven in with the filling.

In the fabric shown in Figs. 1, 6, and 7 the main warp-threads are arranged in pairs,  $A B$ ,  $A' B'$ , &c., and the pairs are bound together by the filling for a short distance, and then the warp  $B$  of one pair bound to the warp  $A'$  of the next adjacent pair, and so on; but as this would not in itself make a desirable fabric the covering-warps are added and woven into the filling, so as to give greater strength to the covering of the main warps, these covering-warps serving to prevent the filling-threads from slipping on the main warps and leaving space between the filling-threads, which would be unsightly as well as objectionable in other respects.

In weaving my fabric I prefer to arrange the main warp-threads in pairs, as shown in the drawings; but it will be clear that they may be arranged singly or in sets which consist of more than two. I also prefer to use the covering-warps so that they shall bind the filling where the filling-threads cross one another in going between the main warps; but it will be clear that the covering-warps may be used wherever desired. In the drawings I have shown a double pattern; but my fabric may be

widely varied in pattern by varying the number of main warps to a set, and by changing the place and number of the covering-warps, and also by varying the method of weaving in the covering-warps.

I will now describe the best mode of weaving the fabric shown in the drawings.

I have shown but six warp-threads in the diagrams Figs. 2, 3, 4, and 5, as these are enough to fully explain the weave. At the first pick the shuttle passes over  $A B$ , under  $A' B'$ , and over  $A^2 B^2$ , and over the covering-warps  $a b$  and  $e f$ , and under the covering-warps  $c d$ , and also under the covering-warps 1 and 3, and over the covering-warps 2 4; and this reversed in the second pick, and the third pick is the same as the first, fourth the same as the second, and so on until the desired length of fabric is woven. This will make a roll of my fabric of one pattern, and is the simplest form of my fabric; but if that pattern is to be woven the covering-warps  $a b$ ,  $c d$ , and  $e f$  are obviously useless, and therefore in weaving that pattern these warps will be omitted. They are shown in the drawings, because they are essential when the pattern shown in Fig. 1 is to be woven; for in Fig. 1, after the sixth pick, the pattern is changed, the shuttle passing on the seventh pick over  $A$ , under  $B$  and  $A'$ , over  $B'$  and  $A^2$ , and under  $B^2$ ; on the eighth pick over  $B^2$ , under  $A^2$  and  $B'$ , over  $A'$  and  $B$ , and under  $A$ , and so on, the ninth and the eleventh being the same as the seventh, and the tenth and twelfth the same as the eighth. After the sixth pick the covering-warps 1, 2, 3, 4, &c., are idle, and the warps  $a$ ,  $b$ ,  $c$ ,  $d$ ,  $e$ ,  $f$ , &c., come into use, thus producing the double pattern shown in Fig. 1, one part of which is shown in cross-section in Fig. 6, the other part in Fig. 7. Fig. 1 shows the finished fabric woven, as above described, with twelve main warp-threads, instead of six, as shown in the diagrams. Fig. 6 illustrates the finished fabric as formed by the six picks illustrated in diagrams Figs. 4 and 5, and Fig. 7 that formed by the six picks shown in the diagrams Figs. 2 and 3.

The button-hole is woven in the usual way



by the use of an extra shuttle, too well known to require description.

I use a Jacquard loom; but it will be clear to all skilled in the art that harness-ooms may  
5 be used.

What I claim as my invention is—

The fabric above described, composed of the main warps, the covering-warps, and the fill-

ing, the main warps being covered by the filling, and the filling being secured and strength- 10 ened by the covering-warps, as set forth.

STEPHEN H. BALDWIN.

Witnesses:

G. B. MAYNADIER,  
JOHN R. SNOW.