

No. 744,544.

PATENTED NOV. 17, 1903.

G. S. HENSEL.
WOVEN SKIRT PROTECTOR.
APPLICATION FILED SEPT. 27, 1902.

NO MODEL.

Fig. 1.

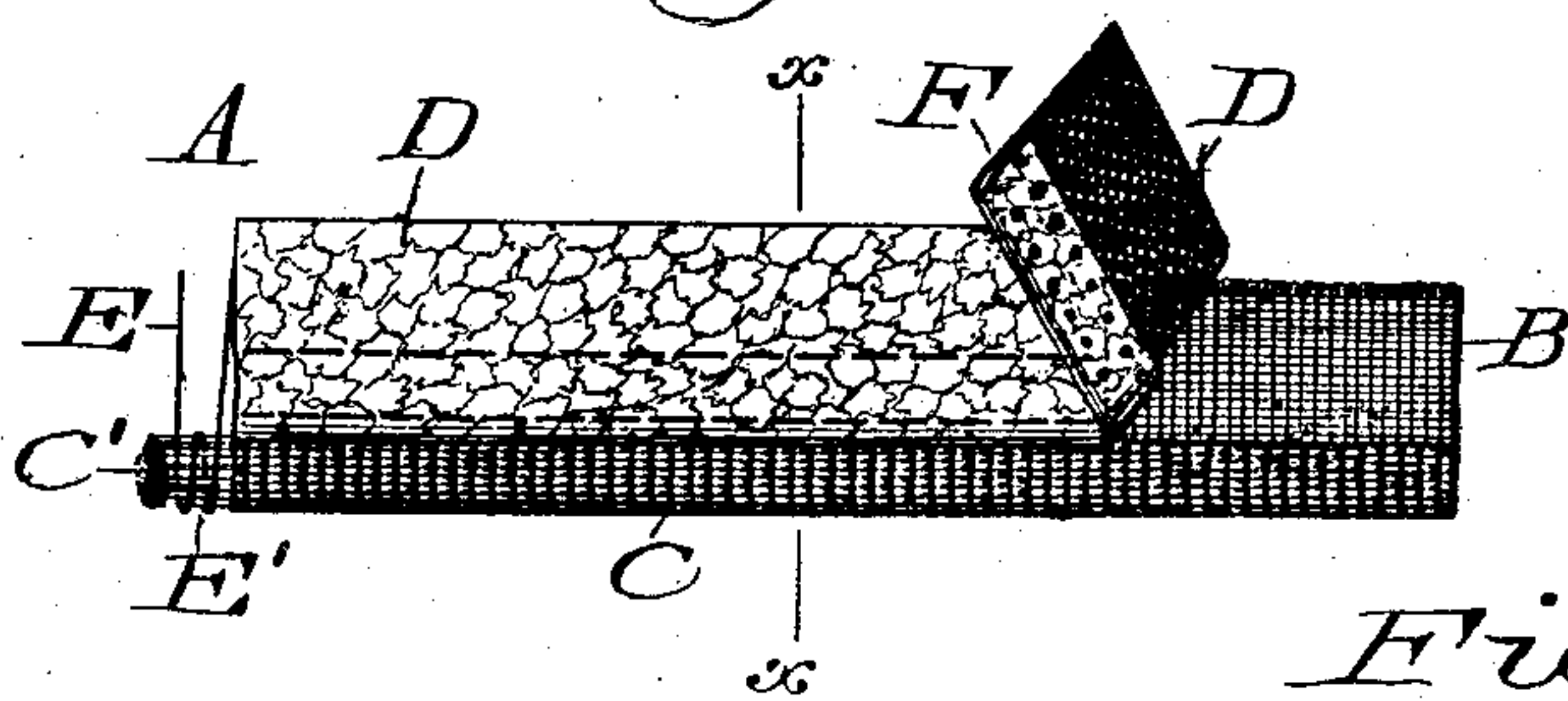


Fig. 3.

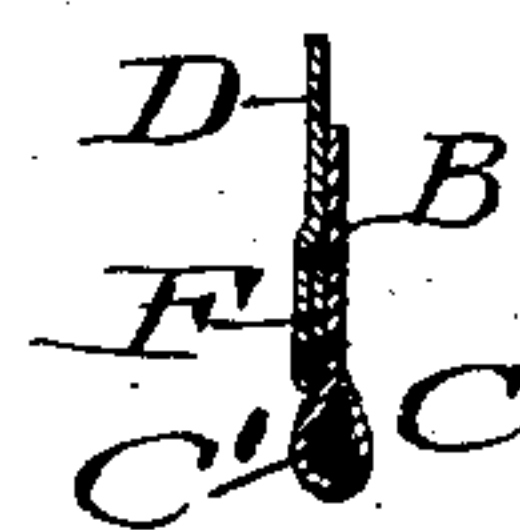


Fig. 2.

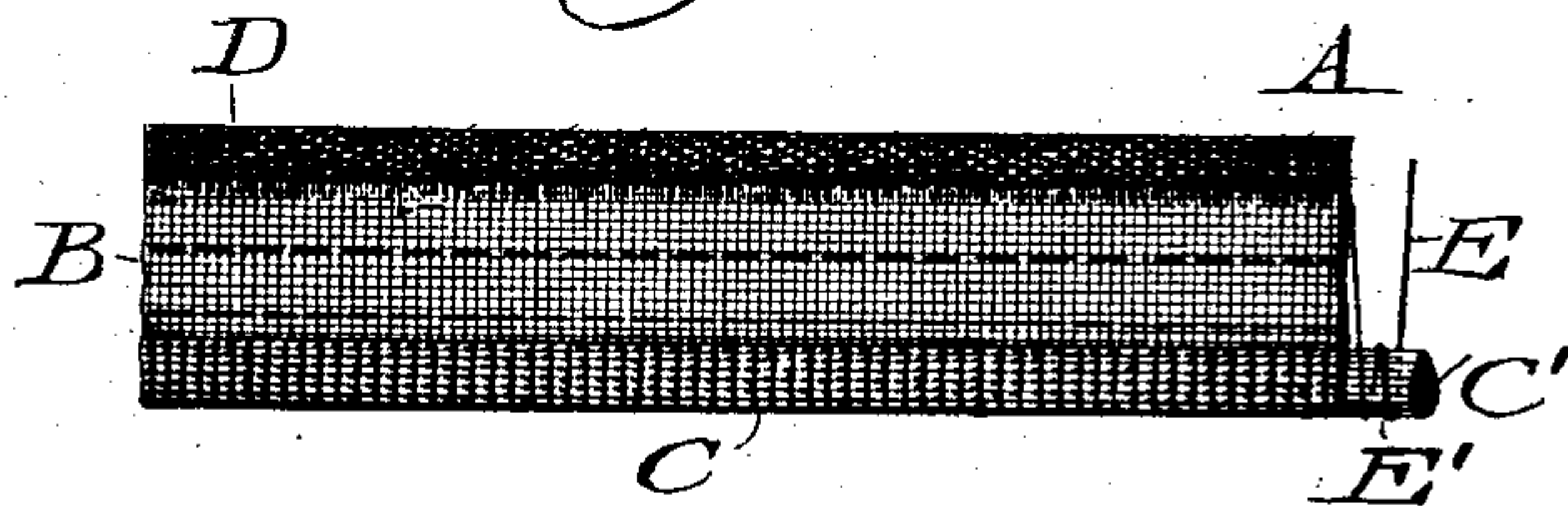
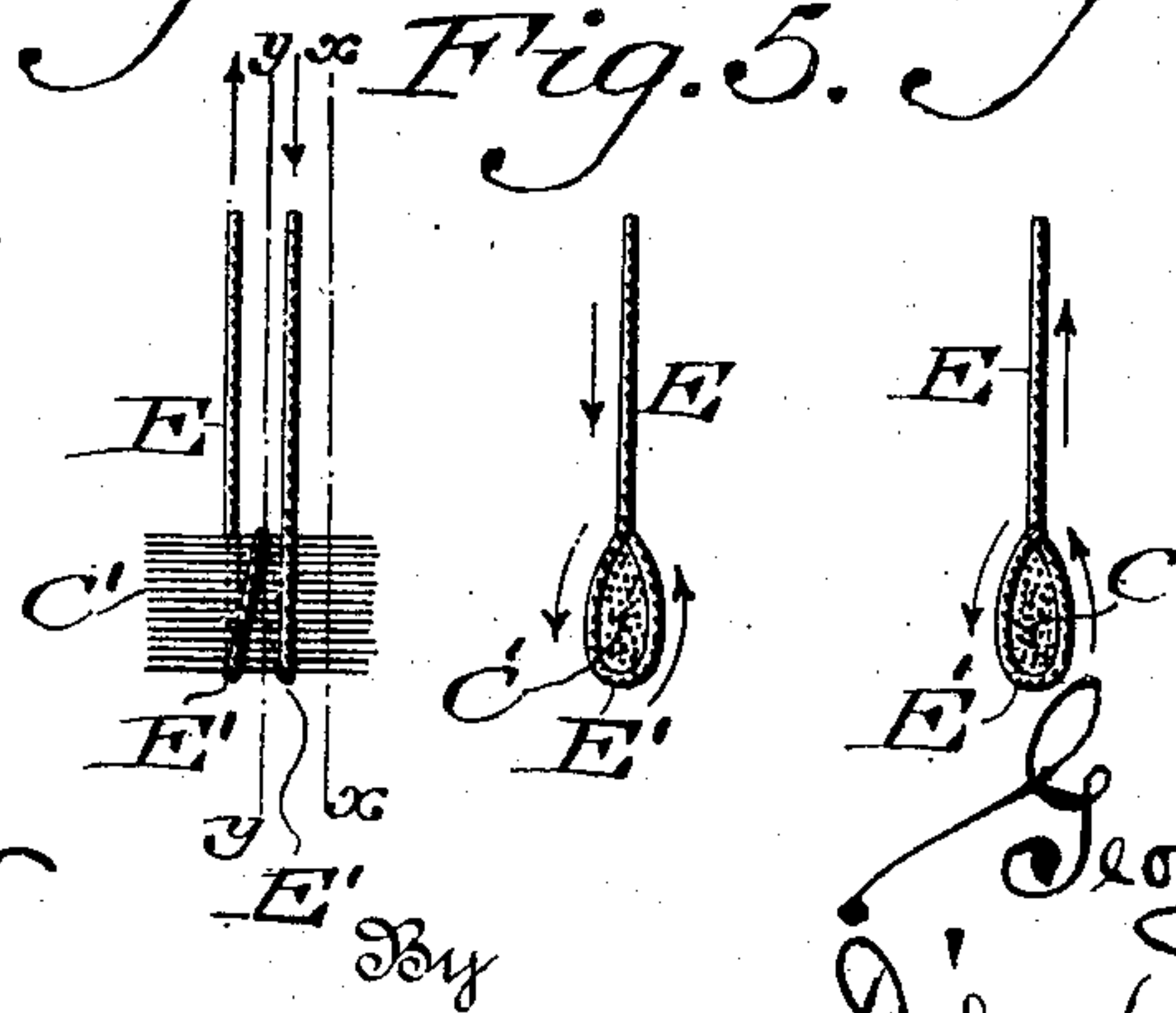


Fig. 4.

Fig. 6.



Witnesses

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WOVEN SKIRT-PROTECTOR.

SPECIFICATION forming part of Letters Patent No. 744,544, dated November 17, 1903.

Application filed September 27, 1902. Serial No. 125,134. (No model.)

To all whom it may concern:

Be it known that I, GEORGE S. HENSEL, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented new and useful Improvements in Woven Skirt-Protectors, of which the following is a specification.

My invention consists of a skirt-protector having the protector proper formed of a heavy body and means for reinforcing the same, whereby its strength and durability are increased.

It also consists of a waterproof or repellent facing on the body of the protector, as will be hereinafter described.

Figures 1 and 2 represent elevations of opposite sides of a piece of skirt-protector embodying my invention. Fig. 3 represents a vertical section on line $x x$, Fig. 1. Fig. 4 represents a detailed view showing the threads forming the bottom of the protector and a number of weft-threads, particularly illustrating said weft-threads passed doubly around said bottom threads. Fig. 5 represents a vertical section on line $x' x'$, Fig. 4. Fig. 6 represents a vertical section on line $y y$, Fig. 4.

Similar letters of reference indicate corresponding parts in the figures.

Referring to the drawings, A designates a skirt-protector which is composed of the head B, the bottom C, and facing D, the latter being stitched or otherwise secured to said head and consisting of a piece of waterproof material adapted to be secured to a skirt or garment, so that while the bottom and head may absorb water said facing will prevent the water or moisture from reaching said skirt or garment, said bottom constituting the protector proper, which is formed of a thick and heavy body of a strong and durable nature, it being formed of a number of threads C' , as warps below the warps proper, employed to form the head B and weft-threads E, which are continuous of those woven with said warp-threads proper in pro-

ducing said head B. As the weaving of the head progresses the weft-threads thereof are passed around said bottom threads C' and again run around said threads, forming a double winding of the weft-threads around said threads E, as shown in E', after which the weft-threads are returned to the head B and, furthermore, woven with the warp-threads, thus continuing the formation of the head, the weft-threads being again extended to the threads C' and passed around the same and doubled, as before, thus uniting the threads C' with the head B and doubly increasing the winding of the weft-threads around said threads C' , completing the bottom C of the protector and reinforcing, and consequently vastly strengthening, the same. As there is a plurality of threads E E', which constitute the binders of the protector proper and head, said protector proper is thereby rendered compact, while the threads C' are completely enveloped and so removed from exposure and direct contact with the sidewalk, street, &c., said threads E E' being, however, the portions subject to wear, and they are well enabled to endure the same, whereby the life of the article is increased.

The lower portion of the facing D is turned up, forming the fold F, which rests upon the head and causes said portion to be flush with the protector proper, C, so that the latter is protected against severe wear, especially in front, while the bend of said facing strengthens the same and prevents unraveling of the fabric of the facing.

Various changes may be made in the details of construction without departing from the general spirit of my invention, and I do not, therefore, desire to be limited in each case to the same.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a skirt-protector, a head formed of warp and weft threads and a protector proper at the bottom of said head, said protector con-

sisting of a longitudinally-extending thread and binding weft-threads which are continuous of the weft-threads of said head, said binding-threads having a plurality of wind-
5 ings around said bottom thread.

2. A skirt-protector comprising a bottom portion consisting of a group of parallel warp-threads, a head portion having a plurality of

parallel warp-threads and a weft common to both portions and having a plurality of wind- 10
ings about said bottom warp-threads for each crossing of said head warp-thread.

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