No. 670,857.

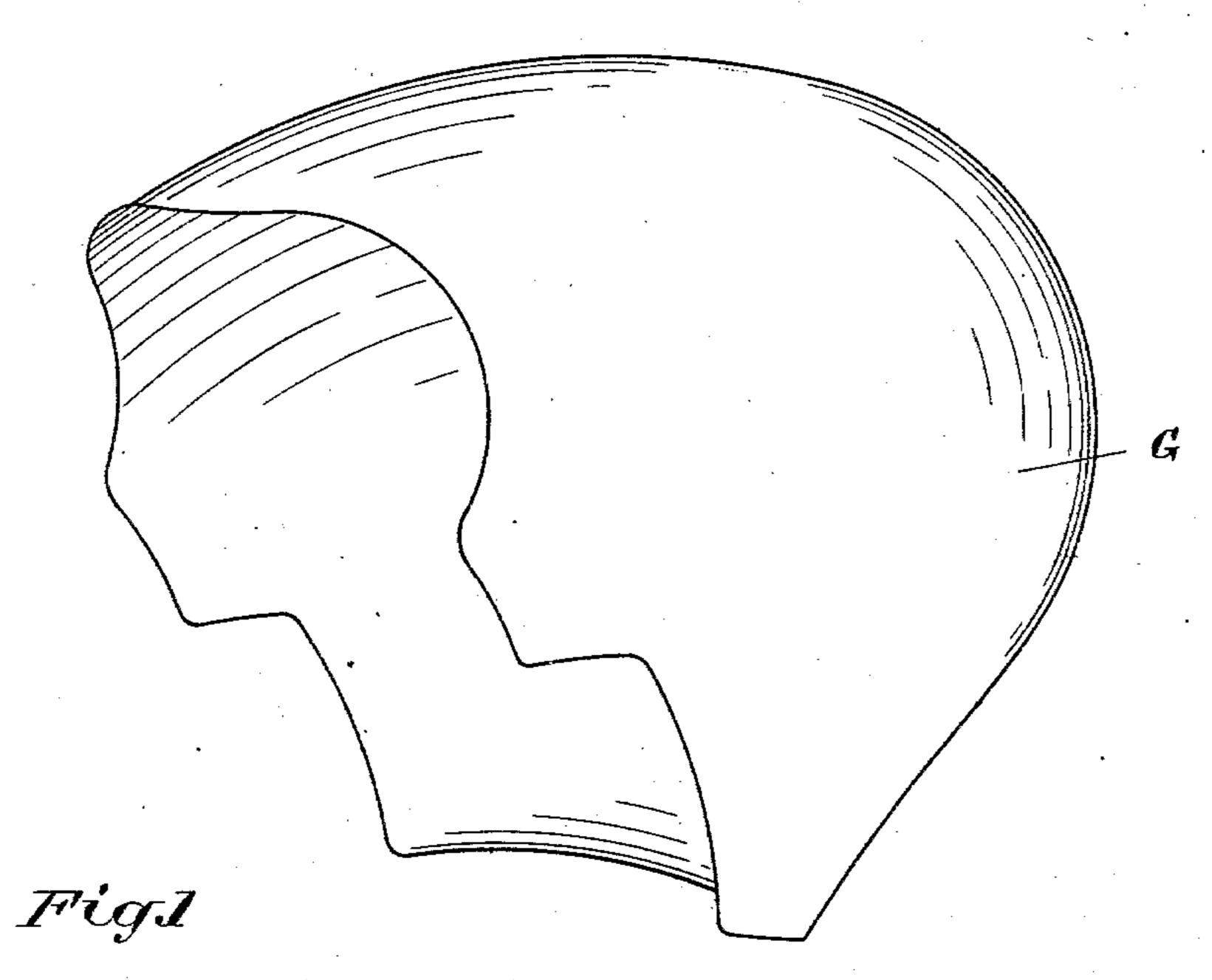
Patented Mar. 26, 1901.

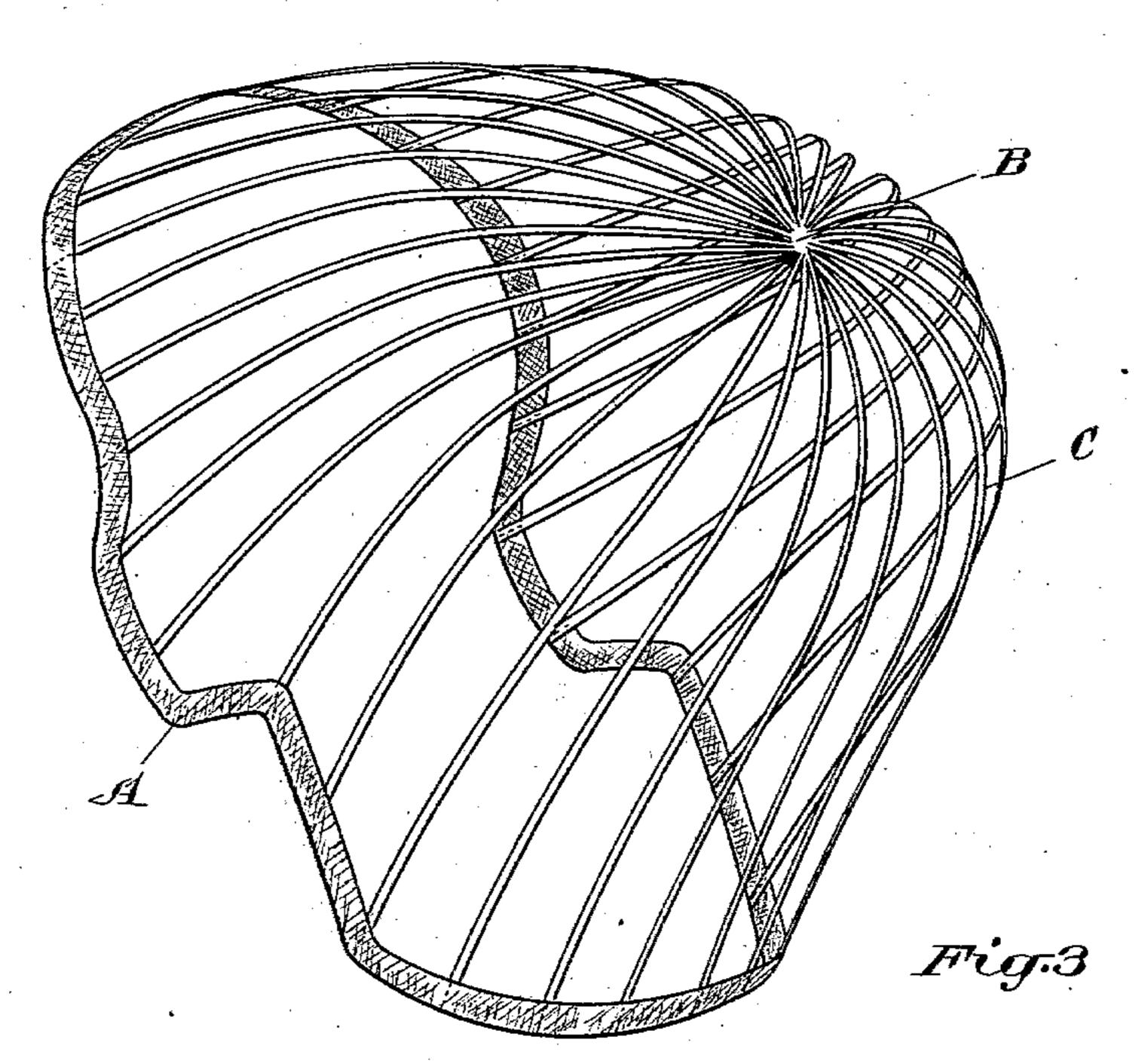
H. DORENWEND. HAIR STRUCTURE.

(Application filed Oct. 30, 1899.)

(No Model.)

2 Sheets—Sheet 1.





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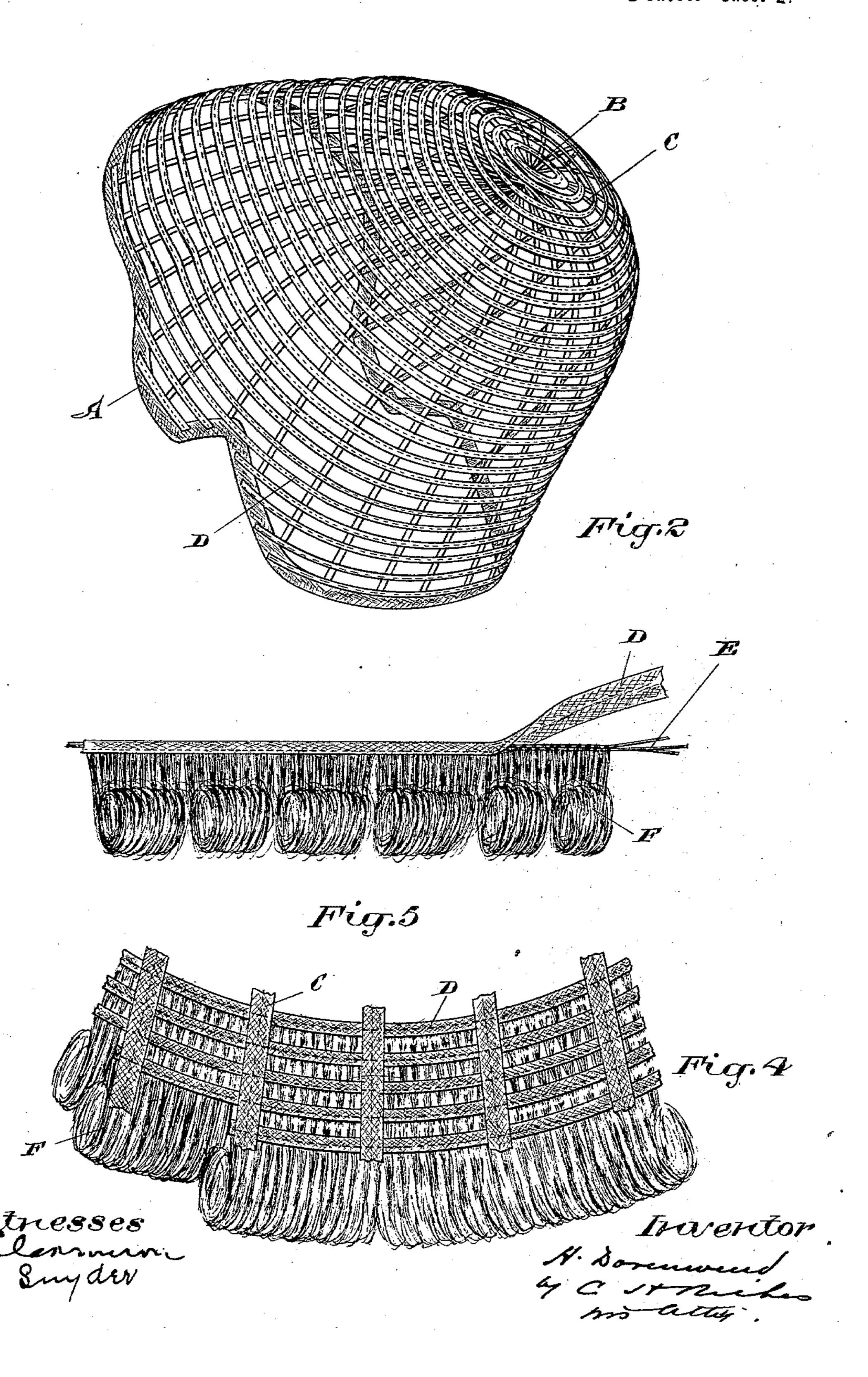
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(Application filed Oct. 30, 1899.)

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(No Model.)

2 Sheets—Sheet 2.



UNITED STATES PATENT OFFICE.

HILDEBERT DORENWEND, OF TORONTO, CANADA.

HAIR STRUCTURE.

SPECIFICATION forming part of Letters Patent No. 670,857, dated March 26, 1901.

Application filed October 30, 1899. Serial No. 735,338. (No model.)

To all whom it may concern:

Beitknown that I, HILDEBERT DORENWEND, a subject of the Queen of Great Britain, residing in the city of Toronto, in the county of 5 York and Province of Ontario, Canada, have invented certain new and useful Improvements in Hair Structures; and I hereby declare that the following is a full, clear, and ex-

act description of the same.

This invention relates to certain new and useful improvements in hair structures, and relates more particularly to structures for wigs, bangs, and other artificial coverings for the scalp; and the object of the invention 15 is to so arrange the hair structure that while completely covering the head it will provide a proper ventilation for the scalp; and the invention consists, essentially, of a borderribbon conforming to the shape of the scalp, 20 a series of warp-ribbons emanating from a common center the ends of which are secured to the border-ribbon, and a series of concentric weft-ribbons sewed to the warp-ribbons, as hereinafter more fully set forth, and more 25 particularly pointed in the claims.

In the drawings, Figure 1 is a perspective view of the mold or pattern of the wig. Fig. 2 is a perspective view of the wig turned inside out, showing the arrangement of border, 30 warp, and weft ribbons. Fig. 3 is a perspective view of the inside of the wig, showing the border and warp ribbons. Fig. 4 is an enlarged view of a section of the wig. Fig. 5 is a view of enlarged section of the woven

35 hair and protecting-ribbon.

Like letters of reference refer to like parts throughout the specification and drawings.

A represents the border-ribbon, which forms the outline of the frame and is shaped

40 to conform to the shape of the scalp.

B represents the center of the wig, and C represents the warp-ribbons, one end of each of which is connected to the center piece B and the opposite end of each of which is con-45 nected to the border-ribbon A.

The border-ribbon, center piece, and warpribbons constitute the skeleton frame of the wig. Sewed to the warp-ribbons C are a series of concentric weft-ribbons D, which contain 50 the cord E, upon which is woven the hair F. The hair F is woven upon cords E, which are contained in a narrow ribbon D, preferably l

of silk. The manner in which this is done is as follows: A long narrow ribbon of silk is laid out flat, and the cord upon which the hair 55 is woven is laid along the middle of the same, after which the ends of the ribbon are folded together and sewed. This ribbon permits of the hair being sewed to the warp-ribbons and also protects the cords upon which the hair 60 is woven from being frayed by the constant wear of the wig.

In making the wig a mold or pattern G is formed similar to that shown in Fig. 1 of the drawings, and to this pattern is stitched or oth- 65 erwise fastened the warp-ribbons C. When all of the warp-ribbons are secured to the mold or pattern G, the border-ribbon A is sewed to the warp-ribbons, after which the weft-ribbons are sewed in place, commencing 70 at the border-ribbon and working toward the center of the top of the wig, the topmost ribbon being substantially concentric with the center of the wig and the next outward ribbon being substantially concentric with the 75 innermost ribbon, and so on outwardly to the border-ribbon.

By making hair structures in this manner a considerable saving is effected in time and labor, inasmuch as it is possible to make the 80 hair structure in approximately one-twelfth of the time that it ordinarily takes by the old processes. In addition to the saving of time and labor in the manufacture of the goods a thoroughly-ventilated hair structure is pro- 85 vided for the scalp, inasmuch as an opening or space is left between the concentric weftribbons and adjacent warp-ribbons. Another advantage of a hair structure made on this principle is that the frame is stronger and 90 more durable and the hair is more apt to remain in place than where the hair is crotched into a fabric frame.

By reference to the drawings, particularly Figs. 4 and 5, it will be noticed that the cords 95 E, upon which the hair is woven, are disposed within the ribbons D and that the remaining portions of the hair are without the ribbons for the purpose of forming the complete covering for the scalp.

Although the invention has been described as applicable to the manufacture of a wig, it is not intended that the invention should be confined solely to this particular class of hair

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structure, as it is also applicable to bangs and other articles of hair structure.

Having thus fully described my invention, what I claim as new, and desire to secure by

5 Letters Patent, is—

1. As an improved article of manufacture a hair structure embracing in its construction an open elastic frame consisting of a textile-fabric border-ribbon, a series of textile-fabric warp-ribbons having their inner ends attached to a common center, and their outer ends connected to the border-ribbon, a series of intermediate textile-fabric weft-ribbons sewed to the warp-ribbons, the border-ribbon and each weft-ribbon being provided with hair-weaving, one edge of which is secured within the casing formed by such border and weft-ribbons and the remaining portion of the said hair-weaving being outside such casing, substantially as specified.

2. As an improved article of manufacture, a hair structure embracing in its construction an open elastic frame, consisting of a textile-fabric border-ribbon, a series of textile-fabric warp-ribbons having their outer ends connected to the border-ribbon, a series of intermediate textile-fabric weft-ribbons sewed to the warp-ribbons, the border-ribbon and each weft-ribbon being provided with hair-weaving, one edge of which is secured within the 30 casing formed by such border and weft ribbons and the remaining portion of the said hair-weaving being outside the casing, substantially as specified.

Toronto, Canada, October 9, 1899.

HILDEBERT DORENWEND.

In presence of— C. H. RICHES, J. E. CAMERON.