G. W. Lockwood.

Hoop Skirt.

No. 36,384. Patented Sept. 2. 1862

Fig. 1.

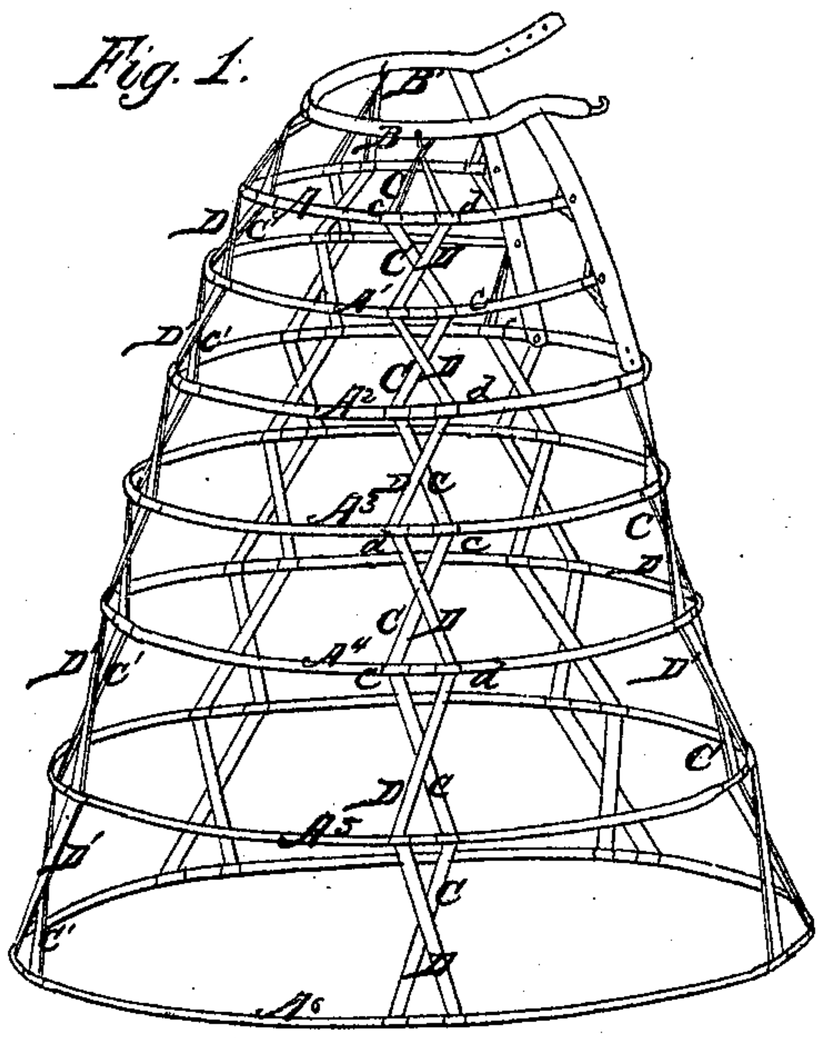


Fig. 4.

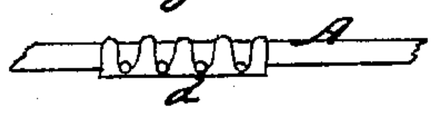


Fig. 2.

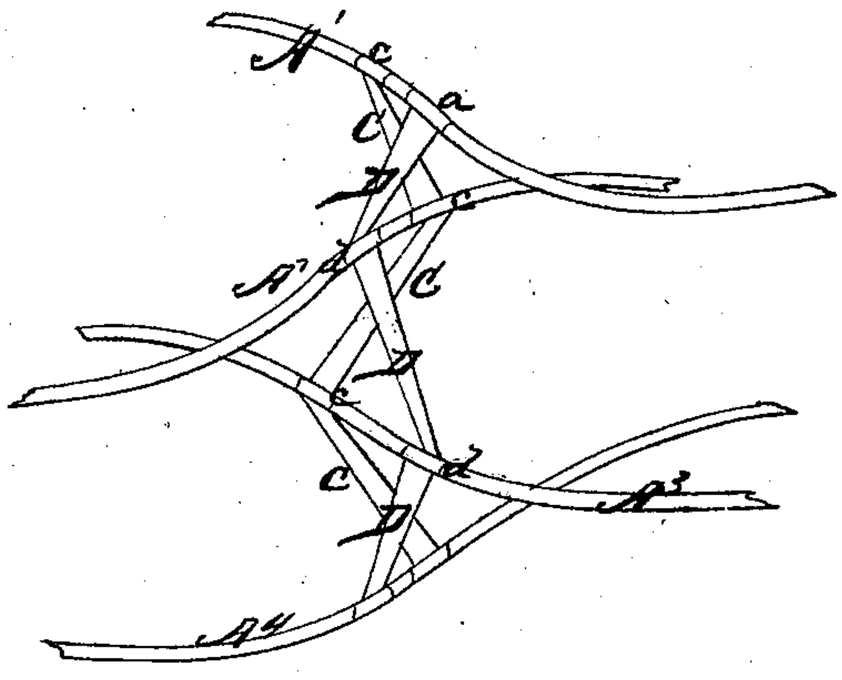
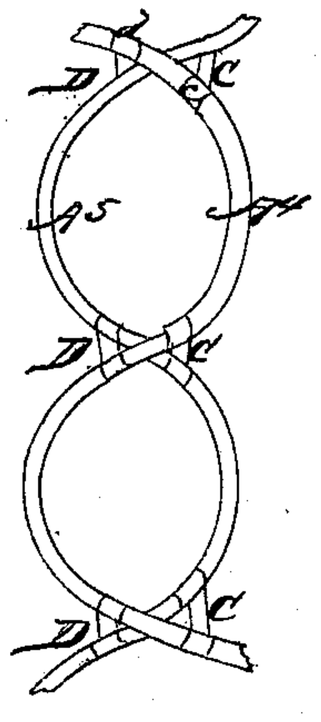


Fig. 3.



Witnesses,
G. H. Babcock
D. C. F. Ryder

Inventor.
Geo. W. Lockwood

UNITED STATES PATENT OFFICE.

GEORGE W. LOCKWOOD, OF NEW YORK, N. Y., ASSIGNOR TO HORACE CARPENTER & CO., OF SAME PLACE.

IMPROVEMENT IN SKELETON SKIRTS.

Specification forming part of Letters Patent No. **36,384**, dated September 2, 1862.

To all whom it may concern:

Be it known that I, GEORGE W. LOCKWOOD, of New York, in the county and State of New York, have invented certain new and useful Improvements in Skeleton Skirts; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a perspective view of my skirt complete. Fig. 2 is a similar view of a portion when subjected to a tensile strain, and Fig. 3 is a plan view of the same.

My invention consists in a peculiar method of connecting the hoops by means of cords or tapes, whereby the elasticity of the hoops is rendered available to make the skirt elastic in the direction of its length.

As skeleton skirts have heretofore been constructed, they have been nearly or quite inflexible in the direction of their length, and when, as frequently occurs, the foot of the wearer becomes entangled therein the hoops are broken or seriously bent out of shape, and not infrequently the wearer is thrown down or experiences great annoyance before it can be disengaged. By reason of the elasticity of my improved skirt these evils are avoided.

To enable others skilled in the art to make and use my invention, I will proceed and describe the construction and operation of the same by the aid of the drawings and the letters of reference marked thereon.

A A′ A^2, &c., are the hoops, and B the waistband of the skirt, of the usual form and material. C is a series of cords starting from the waistband B and running at an angle of about thirty degrees (more or less) from the vertical plane to the first hoop, A, to which they are fastened by a clasp, *c*, so made as to hold each cord separately, as shown in Fig. 4. From A the cords C run at a similar angle, but in the opposite direction, to the hoop A′, where they are fastened in the same way. Thence they run to A^2, parallel to their first course, and so on through the whole series of hoops, forming a zigzag line from the top to the bottom of the skirt and fastened to each hoop. D is another similar series running in a similar manner, but so as to cross C between the hoops, and always on the outside, as represented. It is essential to the success of the invention that the series D should always overlie the series C, as will be seen below. The next adjacent series, C′, are arranged in the opposite direction to C—that is to say, if between the hoops A and A′ the series C incline to the right, then the series C′ incline toward the left between the same hoops, and so on, alternately changing around the skirt. When a tensile strain is brought to bear on the skirt, the tendency of the zigzag cords C and D is to straighten; but as they are kept at a distance apart equal to the distance between the clasps *c* and *d* they cannot straighten in the same plane in which they lie, and consequently tend to assume parallel positions in a plane passing through the axis of the skirt, the cord C being underneath, taking its position nearer the center. To enable the cords to assume this position, the hoops must be bent into a series of corrugations crossing each other in this plane, as is shown in Fig. 3. If the strain is sufficiently severe, the parts will assume this position perfectly; but if a less power be exerted they will approximate thereto, in a greater or less degree, in proportion to the amount of strain. In this position the distance between the hoops is increased, and as a consequence the skirt lengthened; but upon removing the strain the parts tend by the elasticity of the hoops to regain their former position. It will be seen that did the cords C and D alternately cross on opposite sides no such elastic effect would be produced, as they could not in that case assume parallel lines in the axial plane, and the effect of a heavy strain would be to give the hoops a short bend between the clasps *c* and *d*, which would be very liable to break or permanently deform them. In a skirt of a large number of hoops it might be necessary to render available the elasticity of only a portion of the hoops, in which case the cords C and D might cross alternately on the outside between the remainder. This may be found desirable as regards the upper and partial hoops; or the cords may be run parallel in that portion for the same purpose, if desired.

A single cord or a tape may be employed in lieu of the series of cords C or D; but I prefer the latter, because of their greater strength and durability, and from the fact that they readily

assume the zigzag form with an equal strain, which a tape will not do.

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

The arrangement of the cords C and D relatively to each other and to the hoops, substantially as and so as to produce the effect above described.

GEO. W. LOCKWOOD.

Witnesses:
G. H. BABCOCK,
H. B. RYDER.