R. BIERING.

Bustle.

No. 160,048. Patented Feb. 23, 1875.

Fig. 1.

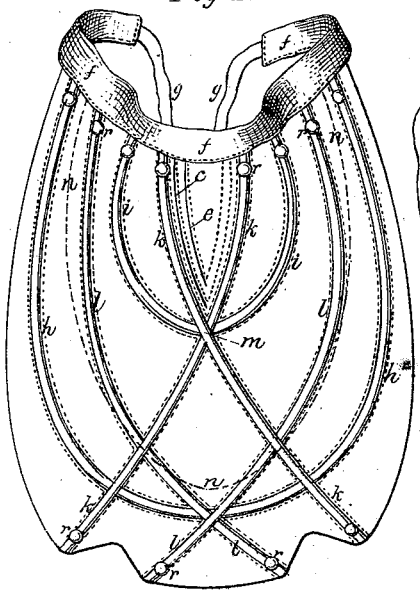


Fig. 2.

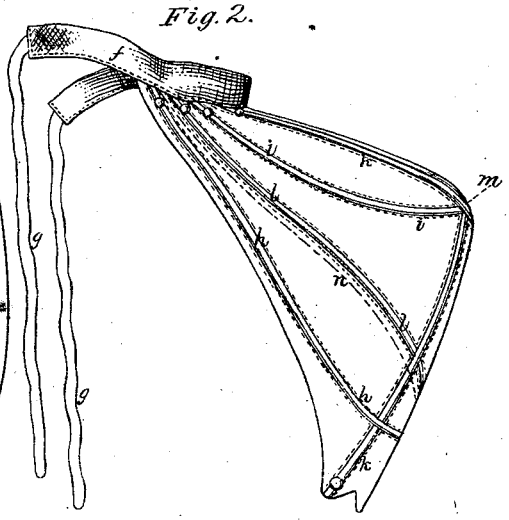


Fig. 3.

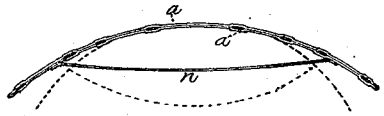


Fig. 4.

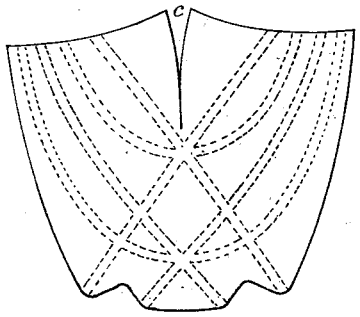
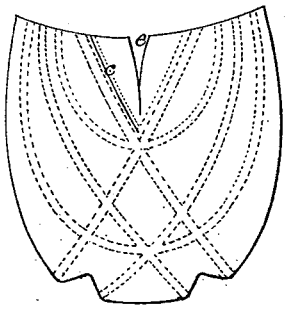


Fig. 5.



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UNITED STATES PATENT OFFICE.

ROBERT BIERING, OF NEW YORK, N. Y.

IMPROVEMENT IN BUSTLES.

Specification forming part of Letters Patent No. **160,048**, dated February 23, 1875; application filed October 9, 1874.

To all whom it may concern:

Be it known that I, ROBERT BIERING, of New York city, county, and State, have invented certain new and useful Improvements in Ladies' Bustles, of which the following is a specification:

My invention consists in a bustle constructed of a layer of cloth, to which suitable springs are secured, and which is formed into the desired shape by a double gore made at the center of the upper portion of the cloth, as hereinafter described. It also consists in forming a bustle with curved, in combination with diagonal, springs, arranged to cross each other, or with springs arranged diagonally with relation to each other, by which unusual rigidity is imparted to the bustle. The invention further consists in a web of cloth extending across the concave or interior side of the bustle, as hereinafter set forth.

In the annexed drawings, Figure 1 is a front elevation of my improved bustle viewed from the exterior side. Fig. 2 is a side elevation of of the same. Fig. 3 is a transverse section thereof on about line *x x* of Fig 1; and Figs. 4 and 5 are plan views on a smaller scale, illustrating the mode of goring, and showing the bustle in two stages of manufacture.

The structure of the bustle consists of two layers, preferably of cloth, (*a a*, Fig. 3,) of about the outline represented in Fig. 4, which are sewed together at the edges and then turned inside out, so as to conceal the stitching on the interior, and form neat edges on the outside. Stitching is made through the cloth, as represented by the dotted lines in Fig. 4, so as to form shirrs or cases for the reception of springs. The springs are inserted and fastened by "spangles" *r r*, Fig. 1, at the ends, and the cloth is then gored at the center of the upper end, as shown at *c*, Fig. 4, the gore extending about one-third the length of the bustle, and nearly to the first curved spring. The gored portion is then lapped and sewed, as seen at *c*, Fig. 5, which forms the bustle into a convex shell-shaped structure. Another gore is then made in this lapped portion, as shown at *e*, Fig. 5, somewhat shorter than the first gore, as represented, and the edges lapped and sewed, as shown at *e*, Fig. 1, which last gore forms the bustle still more convex, and of the desired form and degree of projection, as represented in Figs. 1 and 2. A band, *f f*, is then sewed on the upper edge, and tapes *g g* attached to the same, to enable the bustle to be secured to the wearer, and the bustle is thus completed.

One layer of cloth, with the springs secured to it in a suitable manner, may be employed, when so desired, but I prefer to use two layers, as described, for the sake of neatness and greater convenience in manufacture.

The bustle is stiffened and retained in the desired form by a concentric series of curved and diagonal springs, as represented in Figs. 1 and 2. *h* is the outside curved spring, which extends around the bustle close to the margin thereof, and conforms to the shape of the same, but slightly eccentric therewith, its ends termininating at the band *f*. Within the space inclosed by the first curved spring is a second one, *i*, of similar curve, but slightly eccentric to the first, and it crosses the bustle at or near its center. Within the first curved spring *i* two diagonal springs, *k k*, of opposite inclination proceed from the band *f*, intersect at the center of the curved spring *i*, and extend to the limits of the bustle. Between the two curved springs is a second series of diagonal springs, *l l*, extending from the band to the opposite end of the bustle, crossing the interior diagonal springs, and intersecting at the center of the exterior curved spring *h*, as represented.

The point *m*, where the interior curved and diagonal springs intersect, forms the point of greatest projection, as shown in Figs. 1 and 2, and this point is thereby rendered also the point of greatest strength or rigidity, where strength is most required. This arrangement of springs imparts a stiffness of unusual degree to the bustle, its structure being thereby rendered similar to that of a dome, the effect of which is to produce a rigidity almost equal to that of a metallic shell, while lightness and neatness are secured at the same time—three properties of essential importance in this class of articles.

A web of cloth, *n*, Fig. 3, is secured to the interior side of the bustle, and is of similar shape to the outline of the bustle, but of smaller size, as represented by the dotted

lines *n n*, in Figs. 1 and 2. The web is stretched across the concave side of the bustle in the direction of a chord, as shown in Fig. 3, and is sewed at its side and bottom edges to the same, its upper edge being left free. This web of cloth acts as a stay to prevent the spreading or flattening of the marginal or less rigid portions of the bustle, by being pressed against the wearer. It also forms a pocket, as seen in Fig. 3, for the reception of padding, by which the pocket may be distended and the bustle thereby contracted laterally, as represented by the dotted lines in Fig. 3, and it thus also forms a means by which the bustle may be adjusted in form, when so desired. The pocket also forms a safe receptacle for valuables when it is desirable to so employ it, and as such will be of use to ladies in traveling.

What I claim as my invention is—

1. A bustle constructed of a layer of cloth, to which springs are secured, and formed into the desired shape by a double gore, *c e*, substantially as set forth.

2. In a bustle the web of cloth *n*, stretched across the inner or concave side of the bustle, and secured thereto at its side and bottom edges, its upper edge being left free, substantially as and for the purposes herein set forth.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

ROBERT BIERING.

Witnesses:
CHAS. M. HIGGINS,
ARTHUR C. FRASER.