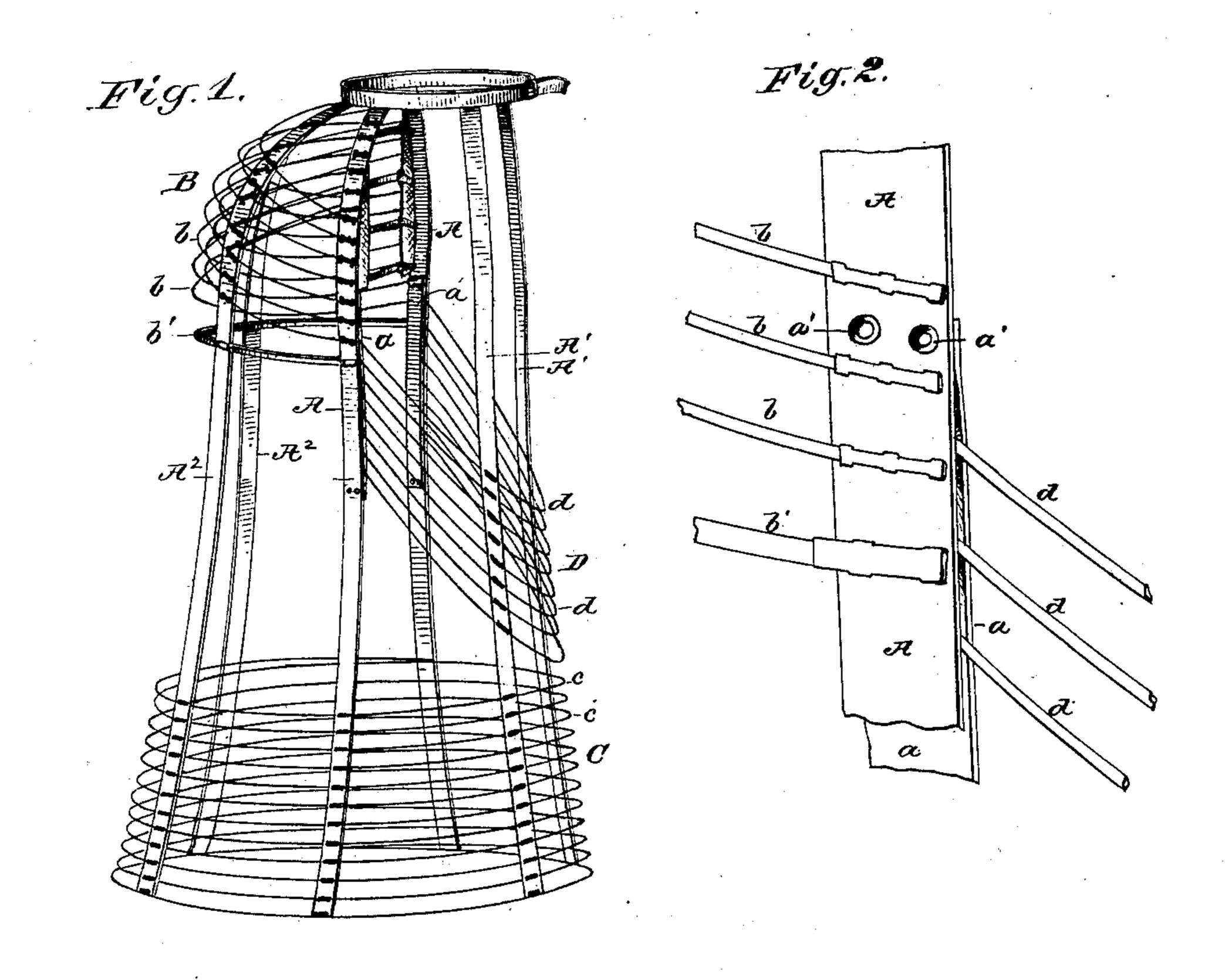
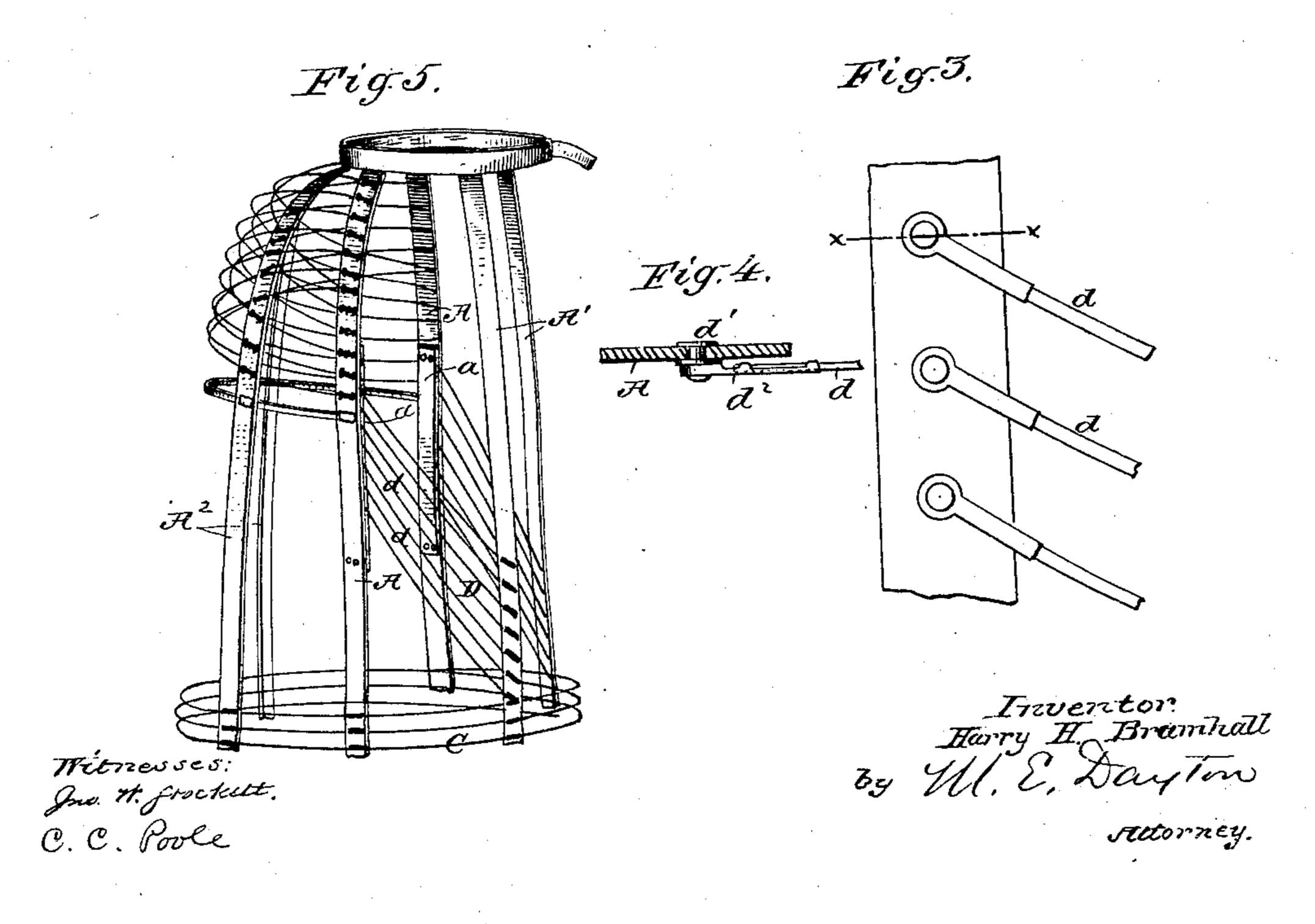
## H. H. BRAMHALL.

HOOP SKIRT.

No. 318,162.

Patented May 19, 1885.





## United States Patent Office.

HARRY HULBERT BRAMHALL, OF MADISON, WISCONSIN.

## HOOP-SKIRT.

SPECIFICATION forming part of Letters Patent No. 318,162, dated May 19, 1885.

Application filed May 24, 1884. (No model.)

To all whom it may concern:

Be it known that I, HARRY H. BRAMHALL, of Madison, in the county of Dane and State of Wisconsin, have invented certain new and useful Improvements in Hoop-Skirts; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates more particularly to that class of skeleton hoop-skirts in which diagonal wires are employed between the lower horizontal hoops and the upper end of the skirt.

The invention consists in certain features of construction and arrangement of the parts, hereinafter fully set forth, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view of the hoop-skirt containing my improvement. Fig. 2 is a fragmentary portion of the skirt enlarged, showing more clearly how the inclined or diagonal springs are attached to the side strip or tape of the skirt. Fig. 3 is a modification within the scope of my invention. Fig. 4 is a section through x of Fig. 3. Fig. 5 is a perspective view of the upper and central portion of the skirt, showing the inclined wires terminating at the front of the tapes, instead of being continued around the front, as shown in Fig. 1.

A A are the vertical side tapes of the skirt. A' A' are the front tapes, and A² are the rear tapes. B is a bustle formed of oppositely-in35 clined springs crossed and preferably interlaced with each other at the back in a manner generally long familiar. Cisa series of horizontal circular springs, c, located at the bottom of the skirt and extending any desired height, not above the knees of the wearer. D is a series of short springs, dd, wholly independent of all other springs of the skirt, having their ends attached to the side tapes, A A, and inclined from these points of attachment downwardly and forwardly into proximity with the circular bottom series of springs C, as shown.

The distinctive features of the invention are the termination of the diagonal springs d at the side tapes, their flexible attachment to the 50 skirt at their ends, and their independence of the bustle-springs.

One and a prime object of the invention is

to obtain a free movement of the diagonal springs fully independently of the top of the skirt, in order that flexure of the person at the 55 hips, as in sitting or rising, may not disturb the bustle. To this end the side springs, d, terminate at the side of the skirt and practically opposite the hip-joints, and the terminals of said springs are flexibly joined with the skirt. For 60 this purpose of flexible junction two devices are shown in the drawings, one in Figs. 3 and 4, and the other in the remaining figures. In Figs. 1, 2, and 5 said side springs are secured to separate short flexible tapes a a, which are 65joined at their ends or at long intervals to the side tapes, A. Being thus fastened to the side tapes, the short tapes or strips allow the springs d d to tilt more freely than if they were secured to the tapes A themselves, because the 70 latter are held in a degree taut by the bustlesprings b b, which are fastened to said side tapes and are rather close to each other. Such of the diagonal springs d as are attached below the bustle might of course be secured to 75 the side tapes; but as some of said diagonal springs are attached above the lower edge of the bustle the separate strip a, if used at all, may preferably be employed for all said springs. The attachment of the springs d to  $80^{\circ}$ said short tapes a is effected by any of the well-known devices or clasps—for example, such as are shown for fastening the bustlewires to the side tapes.

In Figs. 3 and 4 the springs d are shown to 85 be held flexibly to the side tapes, A, each by a pivot, d', clamped to the tapes, but working freely in an eye,  $d^2$ , clamped upon the end of each spring d. Either of these devices, or the equivalent of either, may be employed for the 90 purpose of this invention. By reason of such independent construction and flexible attachment of the diagonal springs d d of the side tapes, instead of making them continuous with the springs forming the bustle, or extending 95 them to the top and back of the skirt, the skirt freely bends at the hip-joints and adjusts itself more perfectly and freely to the movements of the wearer, allowing the clothing to conform to the flexures of the body, roo while at the same time serving its proper office of holding the garments distended at proper points.

Another advantage of making the said diag-

onal springs separate from the bustle wires or springs is that the latter may be placed more nearly horizontal or less downwardly extended at the sides, while the upper and flexibly-jointed extremities of the said diagonal springs may be attached at lower points on the skirt, or more exactly opposite the hip-joints. When the wearer is seated, therefore, the diagonal springs occupy a position at the side of the thigh, and do not tend to raise the garments at the junction of the limbs with the body.

The modification shown in Fig. 5 differs from the construction illustrated in Fig. 1 only in terminating the diagonal wires at the front tapes as well as at the side tapes, instead of continuing them around the front. It is a less desirable construction; but it is to be understood that it is not a departure from my invention.

It is to be understood that I do not claim, broadly, diagonal springs arranged between the bustle and lower springs, since it has been proposed heretofore, in one instance, to employ a downwardly and forwardly inclined diagonal spring secured at its middle to the back tape at a point below an upper range of springs and extending downwardly to points above the lower springs at the front of the skirt, while in another instance a set of diagonal springs has been arranged with the springs of such set severally secured at their lower ends to the

front tapes, and at their upper ends to a horizontal back band or binder located at the bottom of the bustle and extending from one side tape around the back of the skirt to the other

35 tape around the back of the skirt to the other side tape. The diagonal springs in both of the

instances mentioned have, however, been secured also to the side tapes, where they cross the latter, so that said springs are held at their upper ends at two separate points of attach-40 ments, and their lower front ends are thereby held from any considerable movement, except by throwing out of place the back and side tapes to which they are attached. By attaching by flexible connections the diagonal 45 springs at their upper ends to the side tapes only, as in the construction proposed by me, the lower ends of the said diagonal springs are enabled to freely rise and fall in the movements of the wearer, as hereinbefore fully set 50 forth.

I claim as my invention—

1. The combination, with a hoop-skirt having a bustle and bottom springs, of independent diagonal springs d, terminating at their 55 upper ends at the side tapes of the skirt, and flexible connections uniting said upper ends of the springs with the said side tapes, substantially as described.

2. The combination, with the side tapes, A, 60 and bustle-springs secured thereto, of independent diagonal springs d, and separate tapes a, having terminals of the diagonal springs secured thereto and being themselves secured to the side tapes, substantially as described. 65

In testimony that I claim the foregoing as my invention I affix my signature in presence of two witnesses.

HARRY HULBERT BRAMHALL. Witnesses:

A. B. Morris, I. N. Smith.