

Kammerl & Bollermann.

Skirt Elevator.

N^o 57519

Patented Aug. 28, 1866.

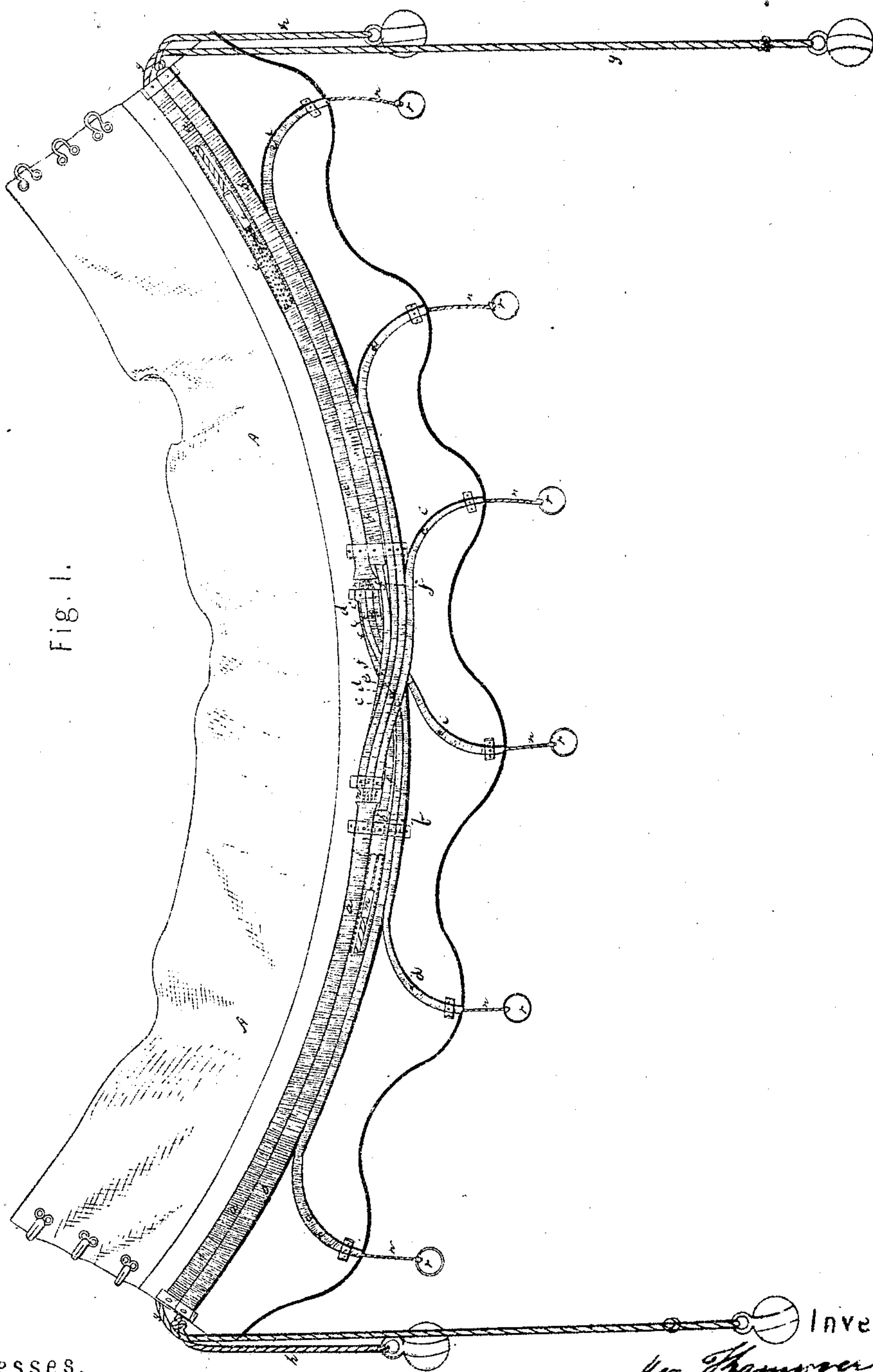


Fig. 1.

Witnesses.

J. W. Cooney

Inventors.

for Kammerl

B. L. Bollermann

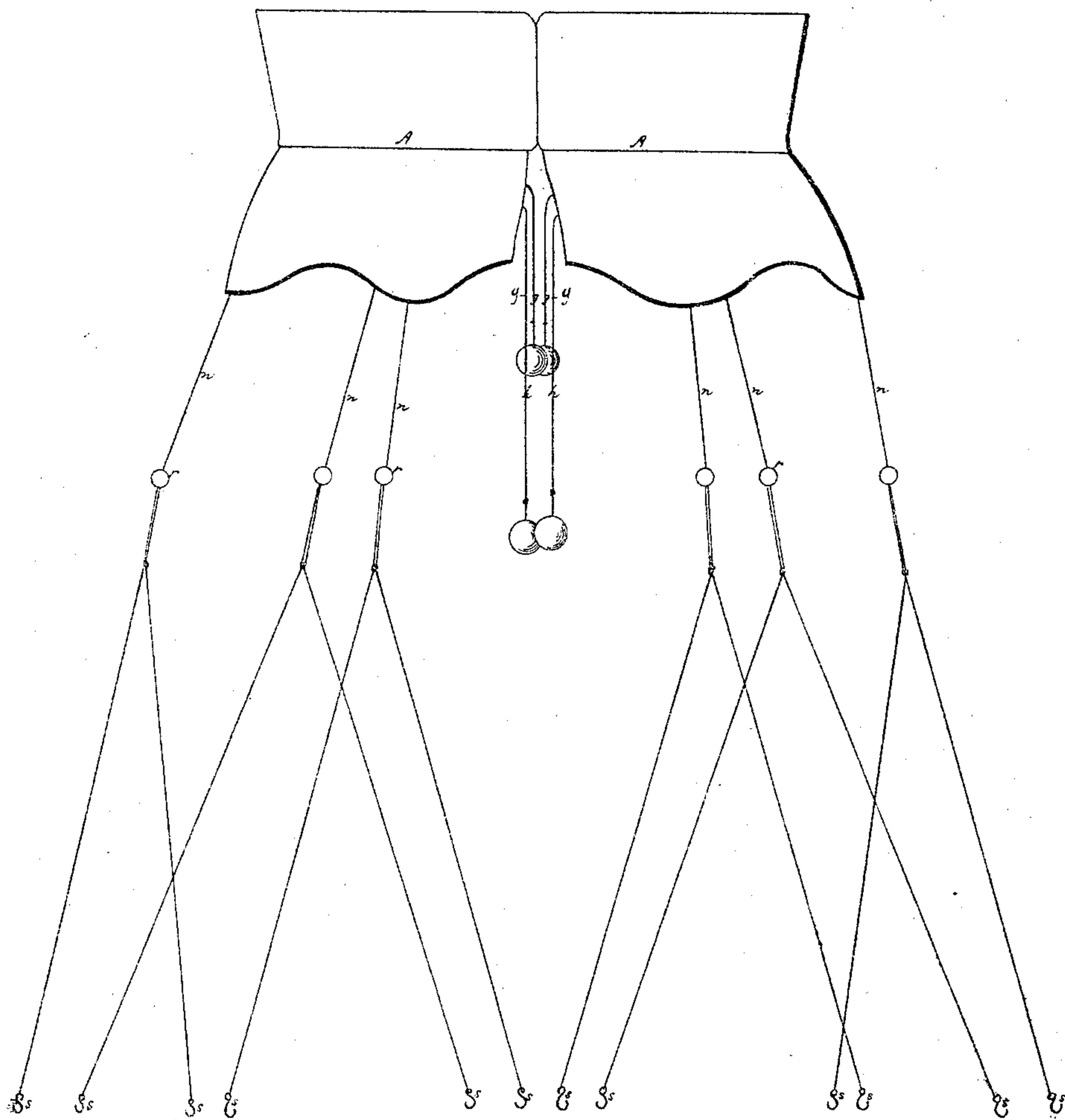
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Fig. 2.



Witnesses.

H. Cornely

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J. Kammerl

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UNITED STATES PATENT OFFICE

G. KAMMERL AND D. L. BOLLERMANN, OF NEW YORK, N. Y.

IMPROVEMENT IN DRESS-ELEVATORS.

Specification forming part of Letters Patent No. 57,519, dated August 28, 1866.

To all whom it may concern:

Be it known that we, GEORGE KAMMERL and D. LEOPOLD BOLLERMANN, both of the city, county, and State of New York, have invented a new and useful Improvement in Dress-Elevators; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents the invention as spread out or extended in order to show the construction thereof. Fig. 2 is a front view, showing its position when worn upon the person.

Similar letters of reference indicate corresponding parts in both figures.

With the dress-elevators heretofore in use the skirt or dress has been caused to drop or resume its original position after being raised by means of weights attached to the lifting-cords, these aid weights being necessarily sufficiently heavy to overcome the friction of the operating-cords upon the tubular casings through which they pass, and thus considerably increasing the weight of the skirt and requiring a proportional increase of force to elevate the same.

This invention is designed to obviate this defect; and it consists in the combination, with the cords which elevate the skirt, of supplemental operating-cords, whereby the lifting-cords are pushed downward when desired in order to let down the skirt.

To enable others to understand the construction and operation of our invention, we will proceed to describe it with reference to the drawings.

A is a belt or band, which, when the elevator is worn, is placed around the waist of the wearer. Attached to one side of this belt, near its lower edge, is a number of flexible cylindrical tubes or casings, through which the various cords are passed, and which may be made of any suitable material, but preferably of coiled wire, so that they somewhat resemble spiral springs. Four of these tubes are made considerably larger than the others, and constitute main tubes, through which are passed the actuating or operating cords of the elevator, as will be presently described. These main tubes are situated longitudinally, two at

each end of the belt, as shown at *a b* in Fig. 1, there being an interval between them at the middle of the belt, and the tubes *b* being placed under the tubes *a*, as shown in the said figure.

Opposite the inner end of each main tube *a*, and communicating therewith, is a series of smaller branch tubes, each series being composed of four or any other suitable number of tubes, which are marked, respectively, *c d e f*. These series of branch tubes cross each other and extend in opposite directions toward the ends of the belt; but the tubes of each series are made of different lengths, and, with the exception of the tubes *f*, have their outer ends curved downward and terminating at suitable points along the length of the belt, as shown in the aforesaid Fig. 1. The tube *f* of each series communicates with the inner end of the opposite main tube *b*.

g represents two of the operating-cords, which operate to elevate the skirt, and the inner ends of which are placed in the main tubes *a*, and have fixed upon each of their said inner ends a cylindrical clasp or slide, *i*, as shown in Fig. 1, a portion of one of the said main tubes *a* being represented in section in order to show the construction of the parts contained therein.

Secured in the inner end of each slide *i*, and consequently attached to the cord *g* thereof, are four cords, *n*, which are made of catgut or other flexible material possessing sufficient stiffness to enable them to be pushed as well as drawn through the tubes through which they are passed. One of these cords *n* extends through each of the branch tubes *c d e f*. Each cord which passes through the tubes *f* extends into the opposite main tube *b*, and is secured to the inner end of a supplementary operating-cord, *h*, by means of a slide, *m*, in a manner similar to that in which the aforesaid catgut cords are attached to the other operating-cords *g*. Those cords which pass through the branch tubes *c d e* have rings upon their outer or lower ends, as shown at *r*, and suspended from each of these rings are any desired number of cords, as represented in red lines in Fig. 2, the said cords being furnished at their lower ends with hooks *s*, which are hooked into the skirt around the circumfer-

ence and at a suitable distance from the bottom thereof.

It should be mentioned that the tubes through which the several cords are passed, as hereinbefore set forth, are intended to be covered by a suitable strip of cloth or other proper material sewed or otherwise secured upon the outer side of the belt A.

The elevator, being thus properly applied to the person and to the dress, is operated as follows: The cords *g* are pulled outward, which draws the catgut cords *n* up through the tubes *c d e*, and in consequence draws upward upon the cords shown in red lines in Fig. 2, and lift the dress or skirt to a height proportioned to the distance to which the cords *g* are pulled outward, the dress being retained at such height by the friction of the several cords upon the tubes through which they pass, the said cords fitting snugly in the said tubes, and this retention of the dress in its elevated position being greatly facilitated by the absence of the weights employed in the dress-elevators heretofore devised.

When it is desired to lower the skirt, the supplemental operating-cords *h* are pulled outward, and inasmuch as their inner ends are connected with the inner ends of the other op-

erating-cords *g* by means of the smaller cords passing through the tubes *f*, as hereinbefore fully explained, the outward movement of the cords *h* draws the cords *g* inward, and the cords *n*, passing through the branch tubes *c d e*, being sufficiently stiff to be pushed as well as drawn through the said tubes, are forced outward and downward by the inward movement of the slides *r*, and thus allow the skirt to fall and resume its usual or original position by its own gravity.

The slides *m* and *i* being smooth in their outer surfaces, and corresponding in shape to the interior of their respective tubes, prevent any dragging or catching which would be likely to occur by the employment of knots in the place thereof.

What we claim as new, and desire to secure by Letters Patent, is—

The combination of the supplemental operating-cords *h* with the lifting-cords *n* and the operating-cords *g*, substantially as herein set forth, for the purpose specified.

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D. L. BOLLERMANN.

Witnesses:

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