

Sheet 1. 2 Sheets.

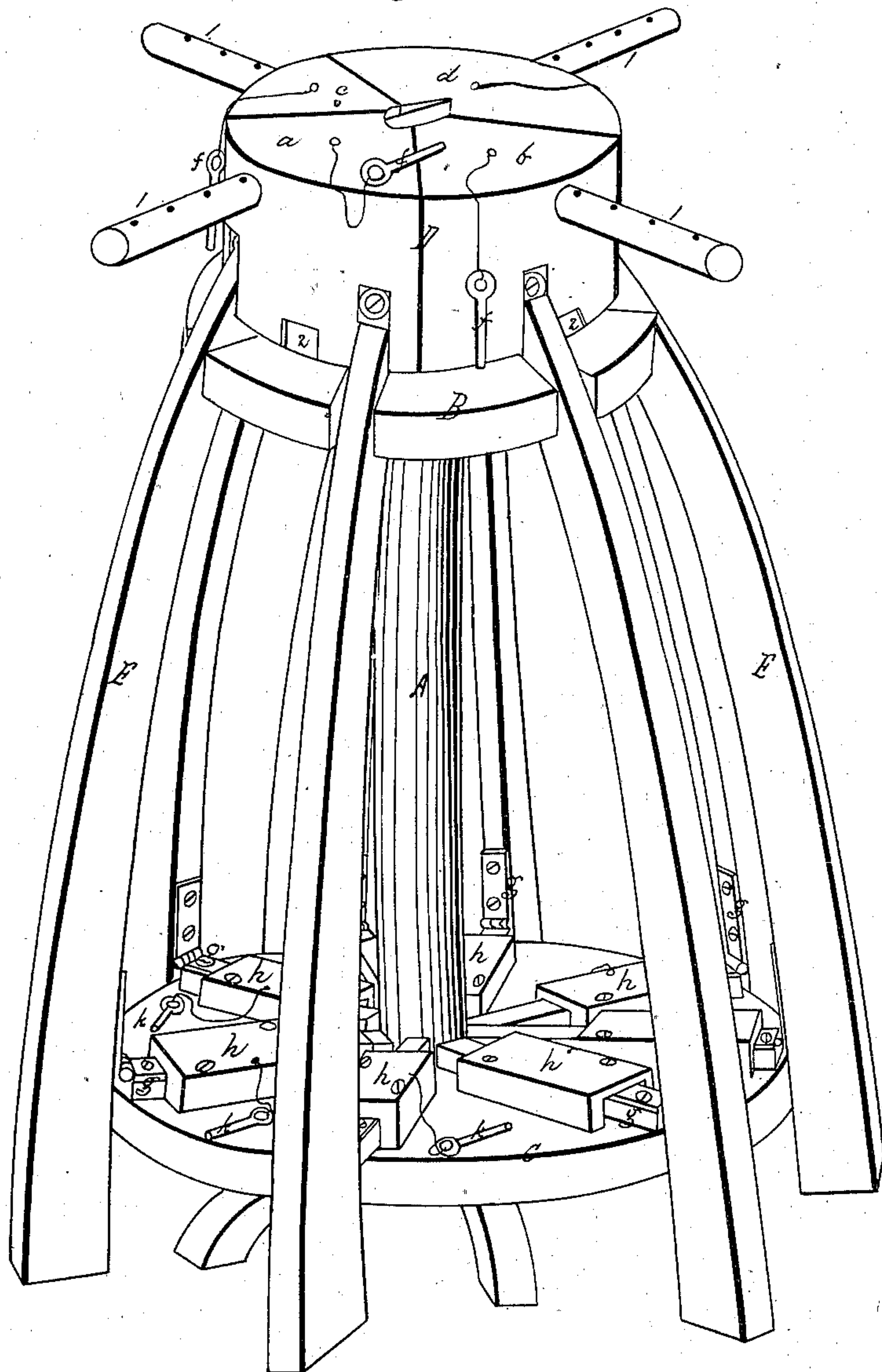
James Amos.

Hoop Skirt Mach.

N<sup>o</sup> 43,380.

Patented July 5, 1864.

Fig. 1.



Witnesses.

*S. D. Lang*  
*W. R. Ronald*

Inventor.

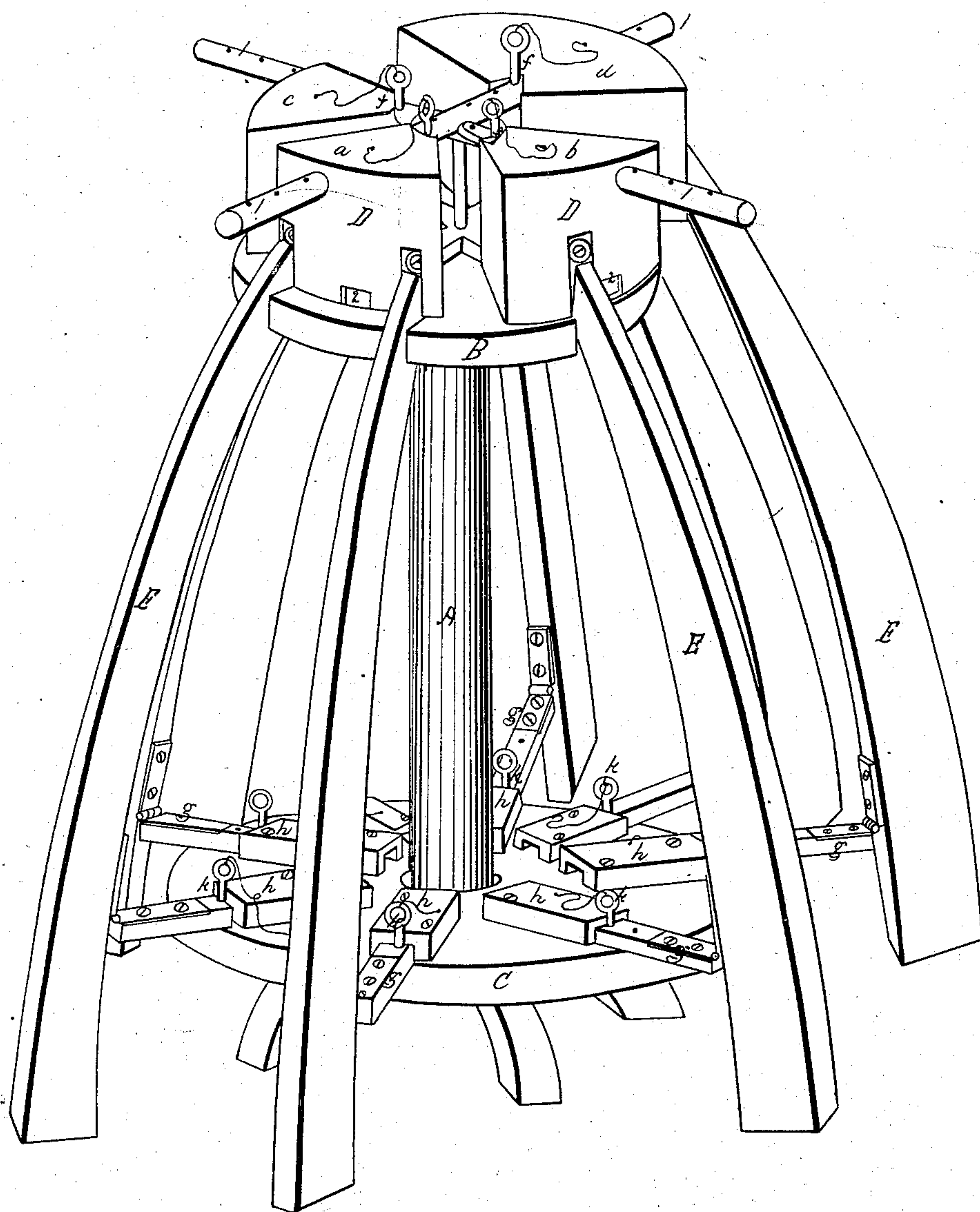
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*S. D. Law*  
*W. R. Rowland*

Inventor.

*James Amos.*



# UNITED STATES PATENT OFFICE.

JAMES AMOS, OF NEW YORK, N. Y.

## IMPROVEMENT IN ADJUSTABLE SKIRT-FORMERS.

Specification forming part of Letters Patent No. 43,380, dated July 5, 1864.

*To all whom it may concern:*

Be it known that I, JAMES AMOS, of the city and State of New York, have invented a new and useful improvement in the form and construction of "formers," so called, such as are used in the manufacture of ladies' skirts; and I do hereby declare that the following is a full, clear, and exact description thereof and of its operation, reference being had to the accompanying drawings, and to the letters of reference marked thereon, and making a part of this specification.

The nature of my improvement or invention consists in so constructing the former that it is adjustable in size, so that upon the same former skirts of all the different sizes required can be made.

Figure 1 is a representation of the former contracted suitable for making the smallest-sized skirts. Fig. 2 shows the same former expanded for making larger skirts.

As is well known to all familiar with the manufacture of skirts, the former is indispensable, not only lessening the cost of manufacture, but also being absolutely necessary in giving the required shape to such article, so as to secure the desired elegance and gracefulness to the dress worn above it.

In the manufacture of skirts by the use of the former, as at present constructed, the manufacturer is compelled to have and use formers of as many different sizes as he manufactures skirts—a particular former for every different sized skirt—from the skirt designed and fitted for the little child to that required for the full-grown person, and of all the numerous shapes and forms demanded by fashion.

In all establishments for the manufacture of skirts a large number of formers are necessarily required, while in the larger ones from a thousand to fifteen hundred are continually being used. Such formers, also, whenever and as often as the shape or style of the skirt is changed, and such changes are frequently taking place, have to be altered or new ones made in place of them. This entails a large and often repeated expense upon the skirt-manufacturer, a very large proportion of which is rendered unnecessary by my invention or improvement in the construction of the former.

Formers as heretofore constructed have been made of any required size and shape, and

the several parts are firmly fastened to each other, so that the former always continues to be of the same size and shape.

As constructed according to my invention, the several parts of the former are so connected together that they can be moved upon each other, and thus the same former be enlarged or contracted in its size.

The several parts of my adjustable former are the standard A, an upper and lower revolving plate or frame, B and C, a waist-block or form, D, and the staves E E. The upper revolving plate or frame, B, rests upon the standard A and supports the waist-block D. This block D is divided into four or more parts, *a b c d*, which move away from and toward each other on the radial arms or rods 1 1 1 1 and on the guide-pieces 2 2. The rods 1 1 are pierced at suitable distances with holes, as shown in the drawings, to receive pins or fastenings *ff f f*, so as to hold the movable parts *a b*, &c., in different positions on the radial rods 1 1.

To more steadily hold the several parts *a b*, &c., I prefer to place the rods 1 1 at or near the upper side of such parts *a b*, and have guide-pieces 2 2, one for every part of the waist block, fixed to the plate or frame B, and appropriate grooves made in such pieces *a b*, &c., to receive such guide-pieces 2 2. The radial rods 1 1 are supported by a central vertical support connecting with the plate B.

To the outer sides of the pieces *a b c d* are connected to the staves E E, which are shaped according to the required shape of the skirt. Such staves are so fastened to such pieces *a b*, &c., either by a hinge loose pivot or the like, that their lower ends can be carried away from or toward the revolving frame C, for the purpose of expanding or contracting the diameter of the skirt. Suitable slots or recesses are cut in such pieces *a b*, &c., and in the upper plate or frame, B, as shown in the drawings, to receive such staves E E and allow of their motion in such recesses. Toward the bottom of the former is another horizontal plate or frame, C, which is supported by and revolves upon the standard A, and with which the staves E E are connected, substantially as follows: From such staves extend inward hinged or elastic or bent arms *g g g*, which move backward and forward within hollow cap-pieces *h h h*, or in suitable grooves on the up-



per or under side of the plate C. Such arms *g g g* are pierced at suitable distances, in the same manner as are the radial rods *1 1* before described, with holes to receive pins or fastenings *k k k* to hold such arms in any desired position upon the plate C, and consequently the staves *E E* nearer to or farther from such plate.

Fig. 1 shows the several parts of the waist-block in contact with each other, and the staves *E E* contracted to their smallest diameter or resting against the plate C; and Fig. 2 represents the several parts of the block *D* expanded and the staves moved outward from the plate C, thus enlarging the size of the former.

Other methods and devices than those above mentioned for expanding and contracting the several parts of the former and for securing them in any particular position may be made use of without effecting the end to be secured.

It will be at once apparent that the several parts of the waist-block may be of such a size that when brought together, as shown in

Fig. 1, they will be no longer than is required for the waist of a child's skirt, but when fully expanded they will be large enough for the waist of a skirt of the largest dimensions. The former should be of a height sufficient for the longest skirt to be made upon it, but there can also be made upon it skirts of a smaller number of wires and of any length to the shortest worn. The same former is thus adapted for the manufacture of skirts of different sizes and lengths without any alteration of its several parts, except expanding and contracting them, as described.

What I claim as my invention, and desire to secure by Letters Patent, is—

A former for use in the manufacture of skirts, so constructed that it can be enlarged or diminished in size, substantially on the principle set forth, so that by means of and on the same former skirts of different sizes can be made.

JAMES AMOS.

Witnesses:

S. D. LAW,

W. R. RONALDE.