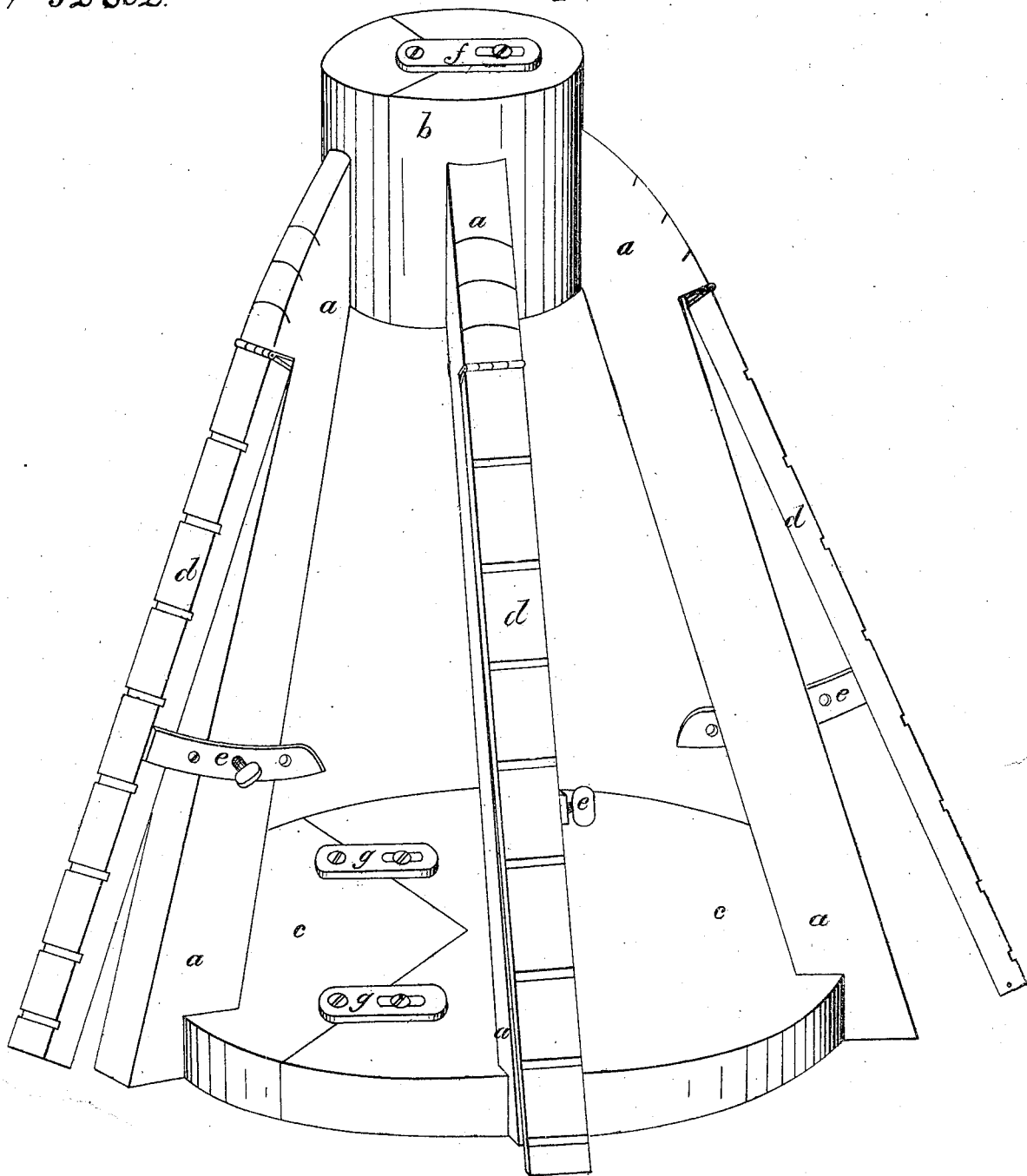


A. Raffel.
Hoop Skirt Mach.

Nº 52 602.

Patented Feb. 13. 1866.



Witnesses,
Thomas Day
Wm Remble Hall.

Inventor,
A. Raffel.

UNITED STATES PATENT OFFICE.

A. RAFFEL, OF NEW YORK, N. Y.

IMPROVEMENT IN HOOP-SKIRT FORMERS.

Specification forming part of Letters Patent No. 52,602, dated February 13, 1866.

To all whom it may concern:

Be it known that I, A. RAFFEL, of New York, in the county and State of New York, have invented certain new and useful Improvements in Adjustable Frames for Hoop-Skirts; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, making a part of this specification, and to the letters of reference marked thereon.

My invention relates to the frames upon which hoop-skirts are shaped and manufactured. As these frames have been ordinarily constructed it is necessary for a manufacturer of skirts to keep on hand a large number of the various shapes and sizes of frames required, involving not only a large outlay of capital in the original construction of so great a number, but also a correspondingly-large expense in making the changes of styles necessary to accord with the varying fashions. The space required for their storage is also a serious objection.

The object of my invention is to furnish a frame that is capable of adjustment for the purpose of adapting it to any moderate amount of change in the general form of the skirt desired without at the same time changing the particular form at the hips, and it is accomplished by jointing the parts of the same together in such a simple manner that it can be expanded or contracted by the persons employed in the manufacture of the skirts in conformity with the change of shape intended to be made.

To enable others skilled in the arts to which it appertains to make and use my invention, I will proceed to describe its construction and operation with reference to the drawing.

The frame is composed of a series of permanent ribs, *a*, secured to the head-piece *b* and the bottom board, *c*, in the usual manner.

The permanent ribs *a* have each a supplementary or movable rib, *d*, that is hinged to

it at the upper end just below the curve, fashioned in adaptation to the form of the hips, and also a clamp and pin, *e*, by which the movable rib may be fastened and held in any position to which it may be turned.

By opening only the front ribs the skirt may be made fuller in front, and in the same manner either the sides and the back may also be made fuller or the entire bottom of the skirt may be expanded by opening all the ribs.

To enable the skirt to be made uniformly larger at both the bottom and the top, or merely at the top alone, the head and bottom pieces of the frame are made in parts that are also held in position by the clamps *f* and *g*, or the same end may be accomplished by hinging the permanent ribs to the bottom board so that they open at the head, leaving the adjustment of the size of the bottom dependent upon the position of the outside movable ribs. By means of these adjustments hoop-skirts may be made on the same frame, either large or small at the top or bottom and full or contracted at the front, sides, and back, without the objectionable alteration of the curve or shape over the hips that is consequent on the use of frames made with ribs that are hinged at the top.

The means of adjustment and for securing the various parts may be by screws or clamps, or in any other convenient manner; but I prefer to have them as I have described, and illustrated in the drawing.

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

The adjustable frame constructed with movable ribs, substantially as described, in such a manner that it may be expanded or contracted without changing the form of the skirt at the upper end.

A. RAFFEL.

Witnesses:

THOMAS DAY,
WM. KEMBLE HALL.