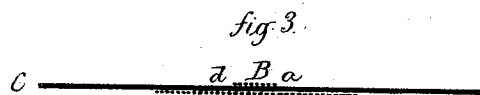
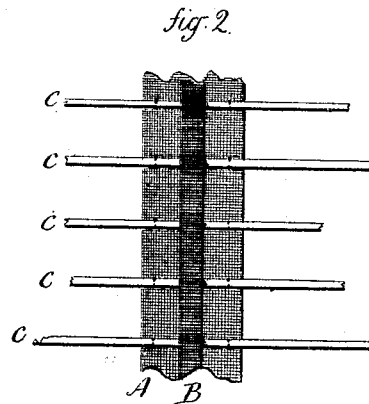
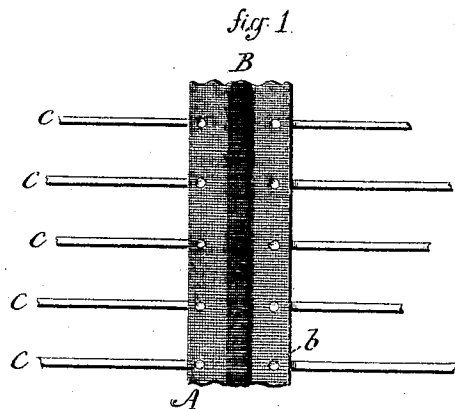


M. P. BRAY.
Hoop-Skirts.

No. 146,866.

Patented Jan. 27, 1874.



Witnesses
A. J. Tibbitts
J. H. Humway

Morris P. Bray
Inventor
By *Atty.*
John D. Earle

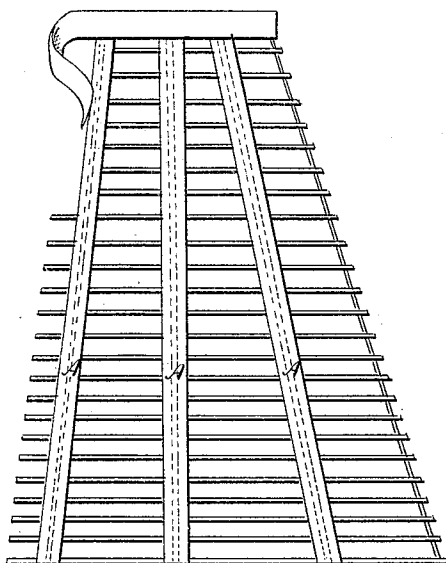
2 Sheets--Sheet 2.

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fig. 4



Witnesses.
A. J. Tibbitts
J. W. Shumway

Morris P. Bray
Inventor
By Atty.
Wm. P. Earle

UNITED STATES PATENT OFFICE.

MORRIS P. BRAY, OF NEW HAVEN, ASSIGNOR TO HIMSELF AND DOWNS & BASSETT, OF BIRMINGHAM, CONNECTICUT.

IMPROVEMENT IN HOOP-SKIRTS.

Specification forming part of Letters Patent No. **146,866**, dated January 27, 1874; application filed December 4, 1873.

To all whom it may concern:

Be it known that I, MORRIS P. BRAY, of New Haven, in the county of New Haven and State of Connecticut, have invented a new Improvement in Hoop-Skirts; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a front or outside view of a portion of one tape with several springs attached; Fig. 2, an inside view of the same; and in Fig. 3, a transverse section on line of one of the springs.

This invention relates to an improvement in the method of securing the springs to vertical tapes of hoop-skirts; and it consists in a skirt in which the tapes are made double (double warp and filling) over a portion of their width at one or more points—that is, with one or more longitudinal pockets, and the several springs passed transversely through the double portion, entering at one edge of the double portion, and coming out at the opposite edge, but upon the same side of the body of the tape, as more fully hereinafter described.

A is the tape, woven double longitudinally at B. If but one such double portion, it should be at the center, as shown; but if two such double portions are formed, they should be a

little distance from the edge of the tape. The springs C are inserted at the desired distance, greater or less, by using a “skirt-needle,” and running it in at one edge of the double portion, as at *a*, Fig. 3, thence between two thicknesses, and out at the opposite edge, as at *d*; but upon the same side of the tape proper as it entered. This supports the springs in their position vertically, and the springs are prevented from transverse movement by tacks *b*, or otherwise.

By this construction the springs may be inserted at any point, and not confined to a predetermined point, as in the use of tapes made with transverse pockets.

I do not claim as of my invention a tape having a longitudinal pocket woven therein, as such I am aware is old.

I claim as my invention—

A hoop-skirt formed with a series of vertical tapes, A, constructed double a portion of their width, and a series of springs passed transversely through the said double portion of the tape, the said springs entering the tape at one edge of the double portion, and passing out at the other edge of said portion, and upon the same side of the tape, as herein described.

MORRIS P. BRAY.

Witnesses:

A. J. TIBBITS,
J. H. SHUMWAY.