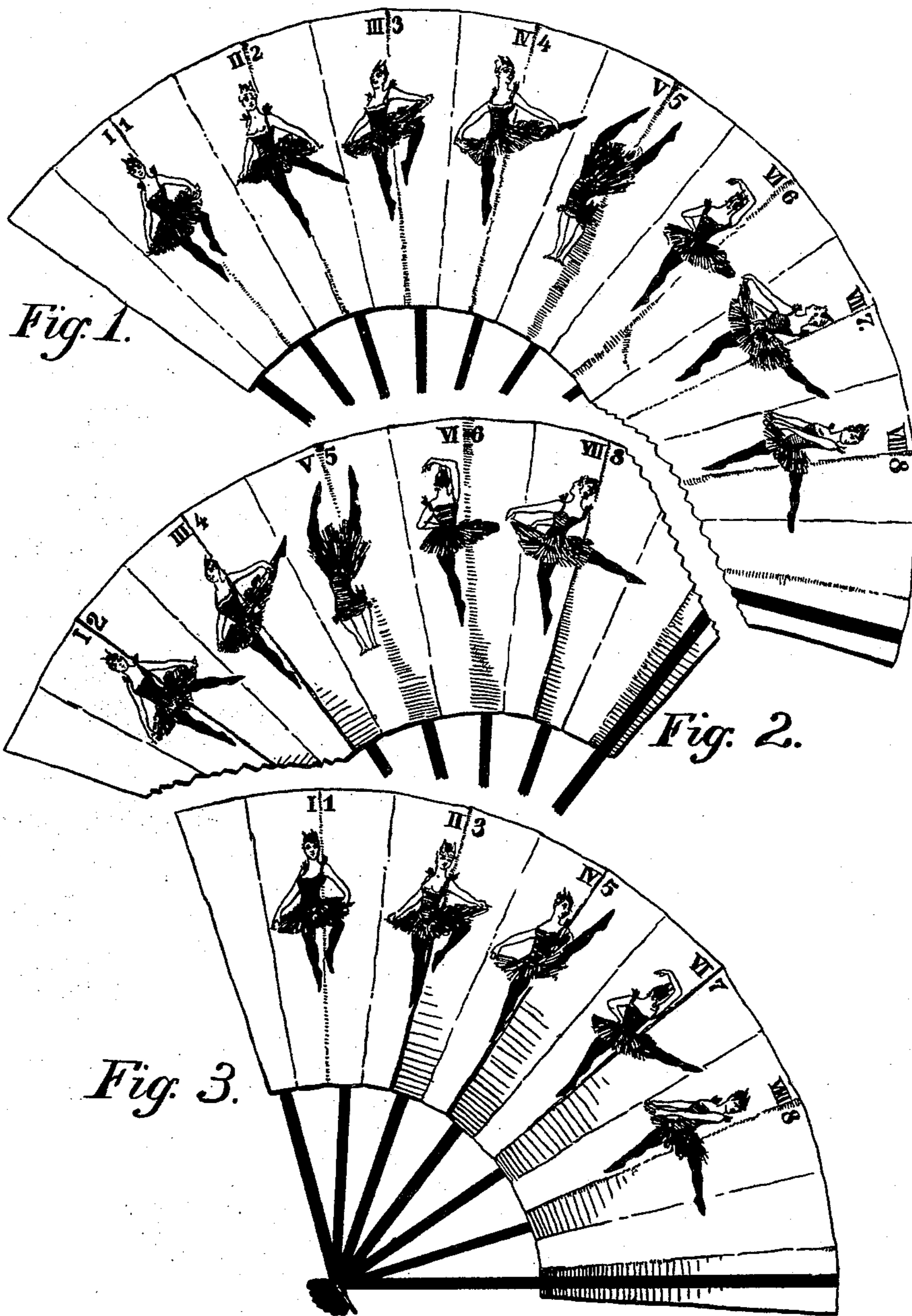


(No Model.)

J. PIERCE, Jr.
COMBINED TOY AND FAN.

No. 538,277.

Patented Apr. 30, 1895.



Witnesses

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UNITED STATES PATENT OFFICE.

JOSIAH PIERCE, JR., OF BALTIMORE, MARYLAND.

COMBINED TOY AND FAN.

SPECIFICATION forming part of Letters Patent No. 538,277, dated April 30, 1895.

Application filed September 24, 1894. Serial No. 523,981. (No model.)

To all whom it may concern:

Be it known that I, JOSIAH PIERCE, Jr., a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in a Combined Toy and Fan; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in combined toys and fans, or in other words in a collapsible fan covered on one or both faces with a plurality of designs or figures so arranged that as the fan is partly closed the parts of each pair of designs or figures brought into juxtaposition by the said folding of the fan, may present a complete design or figure different from either design or figure of the original pair.

For the purposes of my invention, groups of partially superimposed figures of any description may be adopted; but for the sake of illustration I have selected a design of a group of ballet dancers so arranged relative to the folds of the fan that a part of each figure will combine *seriatim* with a part of each and every figure at one side thereof.

My invention will be more fully understood by reference to the accompanying drawings, in which the same parts are indicated by the same letters and numerals throughout the several views.

Figure 1 represents a front view of an ordinary collapsible fan when spread open, the face of said fan having engraved, printed, or painted thereon sketches of eight ballet dancers so grouped that part of each figure will lie on the folding edge between two of the slats of the fan; the section made of each figure by the fold being substantially the same as that made by the corresponding folds of all the other figures. Fig. 2 represents the same fan shown in Fig. 1 after it has been partly closed, and Fig. 3 represents the same fan shown in Figs. 1 and 2, but folded somewhat differently.

In the drawings, the Roman numerals indicate the left hand sides of the folds between adjacent slats of the fan, and the Arabic numerals represent the right hand edges of said folds.

In collapsible fans as ordinarily constructed, the Roman numerals indicate the sides folding under and the Arabic numerals represent the sides always uppermost of each fold.

Beginning at the left of the fan when spread open, the first figure is partly on the side I, and partly on the side 1. The second figure is partly on the side II, and partly on the side 2. The third figure is partly on the side III, and partly on the side 3 of their respective folds, and so on for the other figures. Now if the section of each figure made by its folding line be substantially the same as that made by the respective folding lines of all the other figures, and the figures be grouped so as to have these similar imaginary section lines at equal distances from the pivot center of the slats of the fan, then it will be evident that, no matter how much or how little the fan be folded, each figure will fit into the part of the figure brought adjacent thereto by the folding of the fan, and thus a new figure will be created showing a different pose from either of the two original figures whose parts are so brought together. Thus in Fig. 2, the fan is folded so that the side 2 will be adjacent to the side I, the side 4 adjacent to the side III and the side VII adjacent to the side 8, the sides V—5, and VI—6 being in the ordinary open position.

The various effects produced by the simple folding of the fan is too obvious to be dwelt upon.

In Fig. 3, the sides II and 3, IV and 5, and VI and 7, are folded together as shown producing still different effects.

Since each figure is capable of making an optical combination with each figure to the right thereof on the fan, it will be evident that where there are n figures on one side of a fan, there will be $n \frac{(n+1)}{2}$ combinations of the figures on that side of the fan; and where both sides of the fan are provided with figures similarly grouped to those herein described, then, the total number of variations will be twice as many. It will thus be seen that an ordinary collapsible fan can be converted into a pleasing optical toy.

The choice and grouping of the designs or figures may be varied at will.

It will also be evident that the herein described device is applicable for use with fans made of a plurality of broad flat slats pivoted together, such as ivory fans, sandal wood fans, and the like, and also with the fan-shaped folding screens frequently used for decorative purposes.

I claim broadly the use of my invention in these and all similar relations.

10 Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. A collapsible fan provided with radial slats having a plurality of designs or figures stamped, printed, or painted on one side thereof across the folds of said fan, a part of each

design or figure being adapted to combine with a part of one or more of the other designs or figures, substantially as described.

2. A collapsible fan provided with radial slats having a plurality of designs or figures stamped, printed, or painted on both sides thereof, across the folds of said fan, a part of each design or figure being adapted to combine with a part of one or more of the other designs or figures, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

JOSIAH PIERCE, JR.

Witnesses:

MAURICE J. SIOUSSA,
JOHN C. WILSON.