(No Model.) 2 Sheets—Sheet 1.

T. W. BARTHOLOMEW.

REVOLVING AIR TOY.

No. 272,846. Patented Feb. 27, 1883.

Fig. 1.

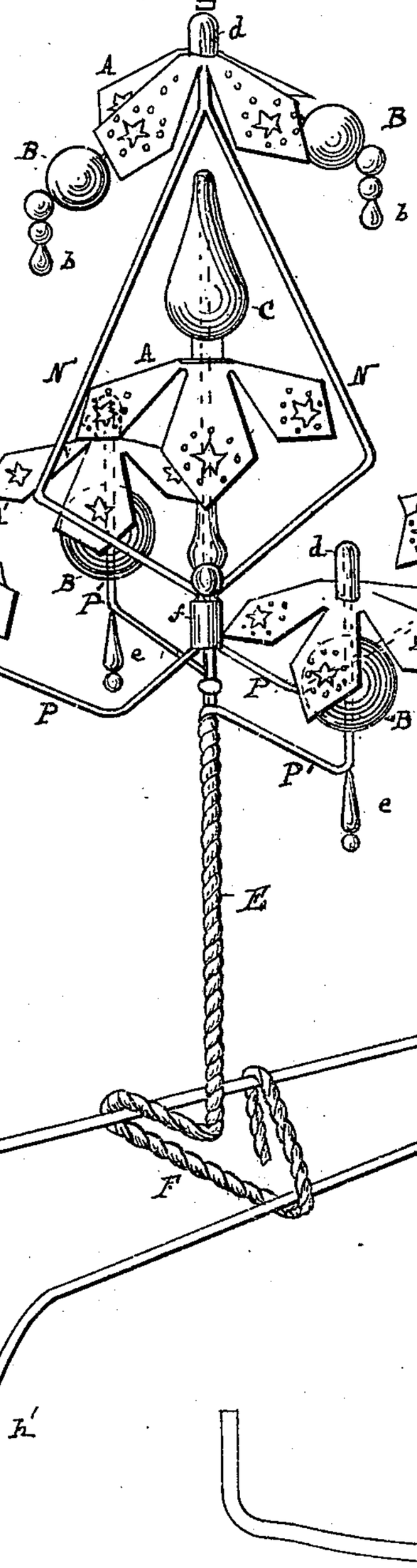


Fig. 2.

Fig. 3.

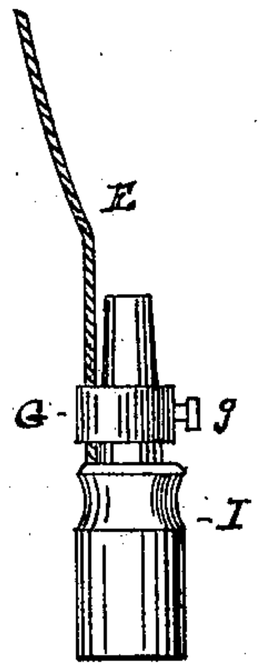
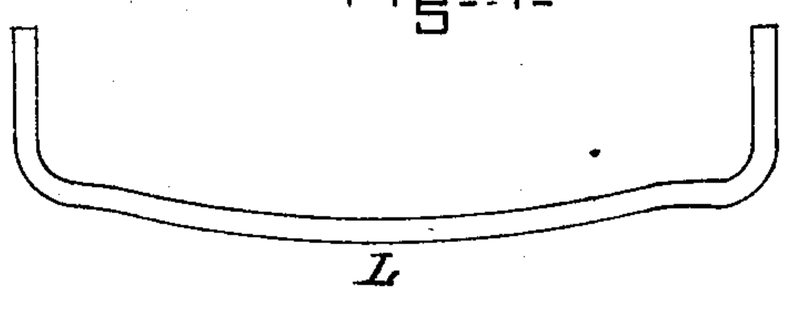


Fig. 4.



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INVENTOR

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his

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(No Model.) 2 Sheets—Sheet 2.

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Fig. 5.

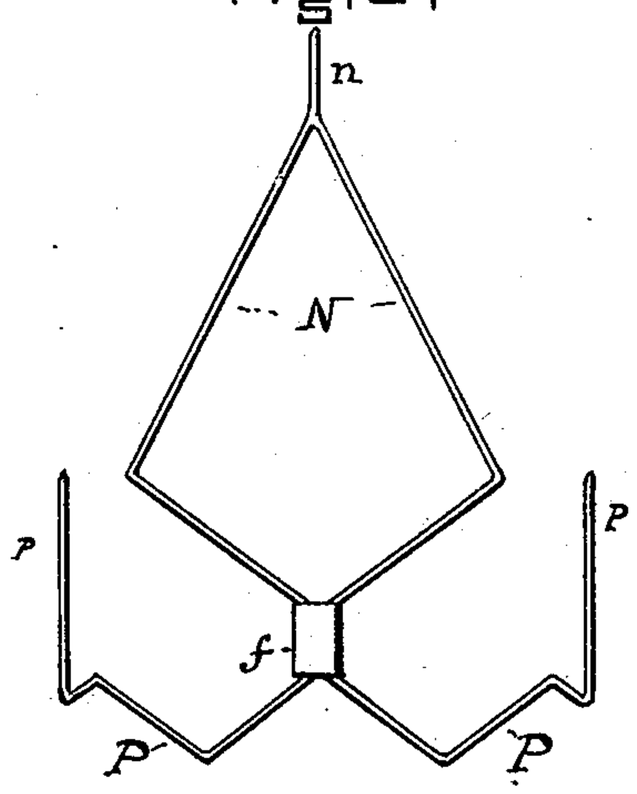
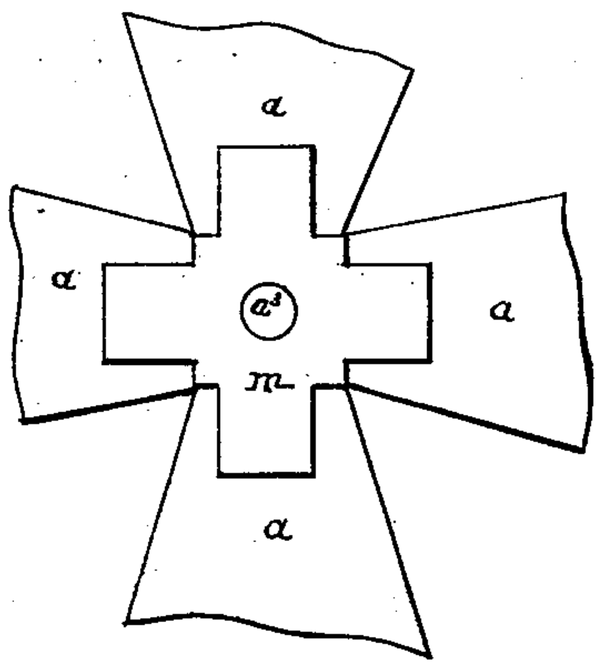


Fig. 6.

Fig. 7.



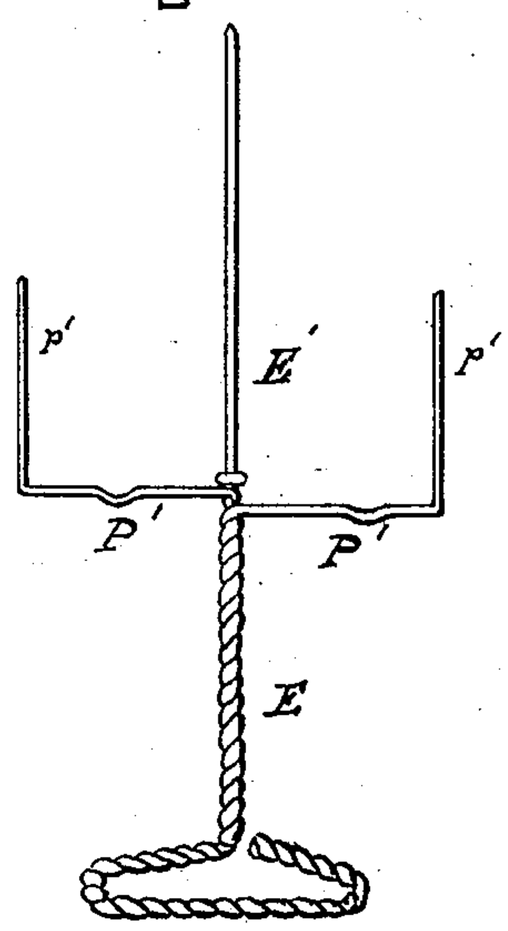
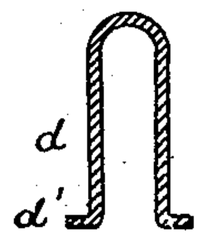


Fig. 8.



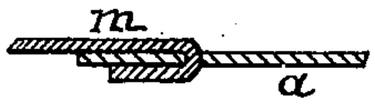
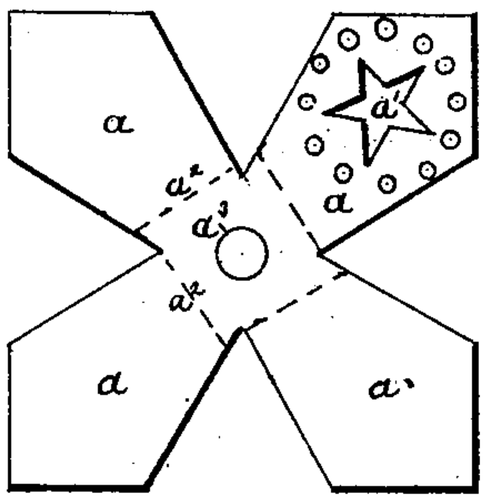


Fig. 9.

Fig. 10.



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UNITED STATES PATENT OFFICE.

THOMAS W. BARTHOLOMEW, OF DANVILLE, PENNSYLVANIA.

REVOLVING AIR-TOY.

SPECIFICATION forming part of Letters Patent No. 272,846, dated February 27, 1883.

Application filed January 10, 1883. (No model.)

To all whom it may concern:

Be it known that I, T. W. BARTHOLOMEW, a citizen of the United States, residing at Danville, in the county of Montour and State of Pennsylvania, have invented a new and useful Improvement in Revolving Air-Toys, of which the following is a specification.

My invention relates to improvements in that class of toys known as "revolving air-toys," and it is intended to be placed over a gas-burner or lamp, or on a mantel, shelf, or any article of furniture. The ornaments of the toy will revolve by the ordinary ascending currents of warm air found in any room. By making some slight changes, which I have provided for, it may be hung from the ceiling or from a chandelier. I attain these objects by the mechanism illustrated in the accompanying drawings.

Figure 1 is a perspective view of the entire toy in working order. Fig. 2 is a view of a small-eyed rod of wire to be used in place of the wire stem E, when it is desired to separate the toy into two parts. Fig. 3 shows the method of attachment to a gas-burner. Fig. 4 shows a form of a wire weight used to rest on the end of the foot of the base when the toy is to be used upon a gas-globe. Fig. 5 is a detailed view of the upper part of the frame. Fig. 6 is the base and central pivot, shown separately in elevation. Fig. 7 is an enlarged view of the wings of revolving ornament, showing method of making up when the wings are made of mica. This is shown also in Fig. 9. Fig. 8 is a section of one of the glass or metal caps upon which the revolving ornaments are fixed. These caps in turn revolve upon wire pivots. Fig. 9 is a sectional view of the method of attaching the metal center to the mica wings, shown also in Fig. 7 in plan view. Fig. 10 is a plan view of one of the revolving ornaments flattened out just as they are cut from the sheet metal. Only one wing is shown perforated. The dotted lines a^2 indicate the lines upon which the wings are bent down.

In Fig. 1, F is the foot of the stem E, which slides over the base H, held in place by the spring of the bent wire of which this base or support H is made. The stem E is made of three strands of wire twisted together. These wires separate at about half the height of the ornaments, two of the wires branching out in opposite directions into two arms, P′ P′, which project from the stem E, at first horizontally, and finally turn up vertically and end in a sharp point. The third wire rises vertically, E′. This arrangement is best shown in Fig. 6, p' p' representing the vertical part of P′ P′.

N (best shown in Fig. 5) is the upper trapezoidal or lozenge-shaped support or frame of the toy, composed of two wires, uniting at n in a sharpened wire pivot, passing through a flat metal sleeve, f, and then branching out into the two irregularly-bent but symmetrical arms P P, which terminate in the vertical pointed portions p p.

A A are revolving ornaments or small windmills, made of glass, metal, or mica. These are best shown in Figs. 7 and 10.

a a are the wings; a' a', openings or perforations; a^2 a^2, lines indicating lines of flexure in bending the flat blank into shape; a^3, a central hole to allow of insertion of a hollow metal or glass cap, d, which acts as a bearing. C is another and more ornamental form of cap.

B B are simply glass balls used as ornaments; b b and e e, ornamental pendants, of glass or metal. In case the ornaments or windmills are of mica, a different method of forming them is best. This is shown in Fig. 7. a a are the mica wings; m, the metal center-piece with the hole a^3. The ends of the metal center-piece m are passed through slits cut transversely in the mica wing a, and then bent against the wings on the underside and tightly clamped, as shown in section, Fig. 9.

The cap, which may be made of either glass or metal, is a tube with a hemispherical top, open and flanged at the bottom, as shown at d'. This cap is pushed through the opening or hole in the center of the wing a^3, and the wings rest upon the projecting flange. This cap is the bearing for the revolving ornaments, and rests upon the wire pivots p p and p' p', which are the terminals of the arms P P and P′ P′.

The base H is made of thick wire, bent somewhat in the shape of a hair-pin, the upper end of the hair-pin h being bent over slightly, and the two prongs h' h' so bent as to form notches, which will enable it to rest firmly upon a glass shade, when it is found necessary to support the toy in that manner.

The bent wire weight L is used to hold the

foot or base H to the globe. When the toy is so supported the weight is placed across the base H at *h' h'*.

G in Fig. 3 is a collar or clamp for attaching the toy to an ordinary gas-burner, I. In this case the foot of the stem F must be straight.

g is a set-screw for clamping the collar upon the burner.

K is a wire used to insert through the sleeve *f* when it is desirable to separate the toy into two parts. It acts as an axis for the central revolving ornament, C. The central ornament, C, has an expansive metal sleeve, which connects the glass cap and the wings together. The ornaments B *b* are attached to a small bent wire, with a ring in the middle of it, which rests upon the top revolving ornament. The winged ornaments are reversible—that is, they may be placed upon the caps with the wings pointing either up or down. They will be found to revolve either way.

The toy may be suspended from the ceiling by means of a wire or cord attached to the wire frame which holds the ornaments.

This air-toy can be made of any number of moving and fixed ornaments and pendants. Some of the ornaments are interchangeable, and the wings may be more or less than four, and perforated differently or not perforated at all. The wings may be of either metal, glass, or mica, and in case the toy is not intended for use over a gas-burner or lamp it may even be made of card-board. In this case the cap could be of wood.

Having fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The foot or base H, having its ends bent to form rests for supporting upon glass gas-globes, the twisted stem E, bent as shown, the arms P and P', and the trapezoidal or lozenge-shaped frame of wire, N, capable of being removed, in combination with the revolving ornaments A and the fixed ornaments and pendants B *b* C.

2. In a revolving air-toy, the stem or frame of two or more wires twisted together, E, having a foot, F, bent doubly so as to firmly grasp the base H, in combination with the arms P' P', bent upright at *p' p'*, and the central wire, E, substantially as shown and described.

3. In a revolving air-toy, the frame of wire, N, consisting of a trapezoidal or lozenge-shaped portion with a vertical terminal wire acting as a pivot, the friction-sleeve *f*, and the arms P P *p p*, substantially as shown and described.

4. The revolving ornament A, consisting of two, three, four, or more wings, so designed as to be cut out of flat material and afterward bent into a cup shape, in combination with a hollow metal or glass cap, *d*, having a hemispherical top and an open-mouthed flanged bottom, *d'*.

5. A revolving ornament constructed of wings of mica held together by a cross-shaped metal center, *m*, the arms of which are inserted through slits in the wings *a*, and firmly clamped against the under side of those wings.

6. In combination with a revolving air-toy, the sleeve G and set-screw *g*, for attaching to a gas-burner.

In witness whereof I have hereunto set my hand.

THOMAS W. BARTHOLOMEW.

Witnesses:

ROBERT ADAMS,

GEO. M. KINN.