B. K. HAUCK.

AERIAL TOY.

APPLICATION FILED NOV. 30, 1921.

1,408,001. Patented Feb. 28, 1922.

Fig. 1.

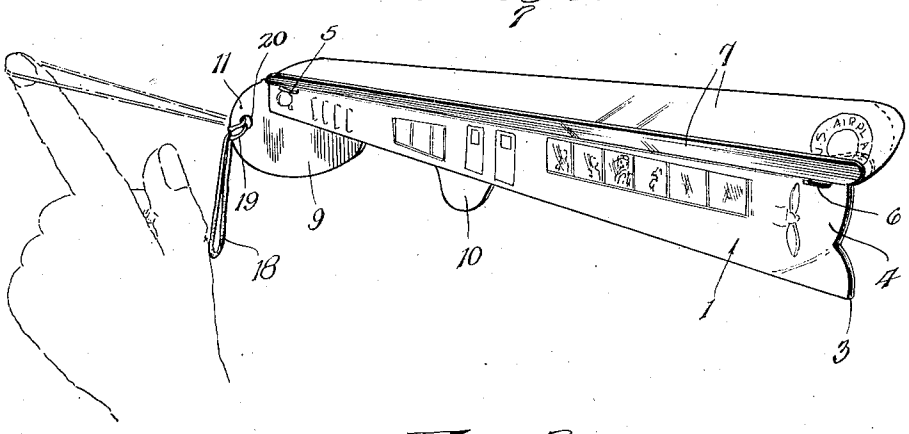
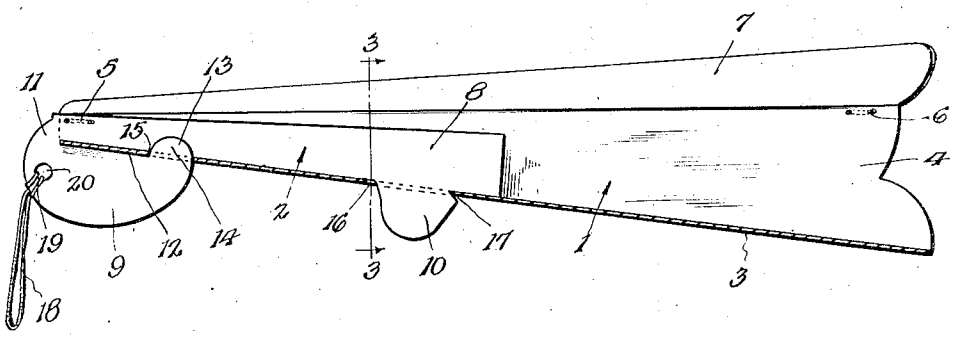


Fig. 2.



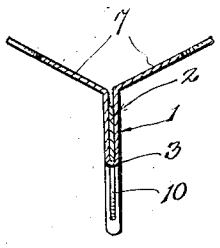


Fig. 3.

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UNITED STATES PATENT OFFICE.

BERNARD K. HAUCK, OF CINCINNATI, OHIO, ASSIGNOR TO SPOTSWOOD SPECIALTY CO., OF LEXINGTON, KENTUCKY.

AERIAL TOY.

1,408,001. Specification of Letters Patent. Patented Feb. 28, 1922.

Application filed November 30, 1921. Serial No. 518,862.

To all whom it may concern:

Be it known that I, BERNARD K. HAUCK, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Aerial Toys, of which the following is a specification.

This invention relates to improvements in aerial toys and more particularly to a toy simulating an aeroplane and designed to be impelled through the air with a gliding motion.

The toy embodying the invention is designed primarily to be employed as an advertising medium for free distribution and therefore it is one of the primary objects of the present invention to so construct the same that it may be manufactured from inexpensive material and at a very low cost.

Another object of the invention is to so construct the toy that it may be produced, except for the impelling means, by the assemblage of but two blanks and to provide means for holding one of the blanks in proper form and at the same time secure the assembled blanks together in their proper relation.

One of the blanks referred to above constitutes the body and wings of the toy and the other blank constitutes a keel, and it is a further object of the invention to so form the blanks that when assembled the keel will be interlocked with the body of the toy in addition to being secured thereto by the fastening means referred to above so that without the employment of extra fastening means, or in other words more than the number required to hold the body blank in proper form, the two blanks will be maintained in their properly assembled relation.

Another object of the invention is to so construct the toy that it may be arranged to sail or glide in a more or less straight line and in upright position or may be caused to whirl as it glides through the air.

Another object of the invention is to so construct and locate the keel member of the toy that the same will constitute not only a means tending to maintain the toy upright as it glides through the air but will also serve as a means for properly balancing and distributing the weight in a manner to insure of the toy traveling a maximum distance when impelled.

In the accompanying drawings:

Figure 1 is a perspective view of the toy embodying the present invention;

Figure 2 is a vertical longitudinal sectional view therethrough, the keel member being shown in elevation;

Figure 3 is a vertical transverse sectional view taken substantially on the line 3—3 of Figure 2 looking in the direction indicated by the arrows.

The toy comprises, essentially, a body member which is indicated in general by the numeral 1, and a keel member indicated in general by the numeral 2. Both of these members are formed from some suitable sheet material such for example as cardboard and each comprises an integral blank. The body member 1 is formed by folding the initial blank longitudinally medially as at 3 to provide side members or plies 4 which are brought close together and secured in their mutually folded relation preferably by staples 5 and 6 located respectively near the front and rear ends of the body. Thus the body 1 is of two ply construction, the plies being connected at their lower edges by the fold 3, and at their upper edges by the staples 5 and 6. These plies represent the body proper which is preferably so shaped as to more or less closely resemble the cabin of an air ship, and the resemblance may be enhanced by any suitable pictorial representation of windows, passengers, etc., upon the outer faces of the plies 4 as best shown in Figure 1.

The wings of the toy are indicated by the numeral 7 and the said wings constitute extensions joined with the upper edges of the plies 4. In fact the wings are integral with the plies and are adapted to be positioned at the proper angles to sustain the toy in its flight through the air, by folding the blank along the juncture of the wings with the plies 4. It will be evident at this point that the wings may be caused to assume various angles of inclination with respect to the plane occupied by the plies 4 so that when the toy is impelled through the air, the wings will serve to sustain the same until the momentum of the toy has been lost. At this point it will be understood that so long as all portions of each wing 7 occupy a common plane suitably inclined with relation to the plane of the plies 4, the toy will be maintained in upright position in its flight

through the air but should it be desired to have the toy whirl in its passage through the air, this may be readily accomplished by bending up the rear end portion of one wing and bending down the corresponding portion of the other wing as illustrated in dotted lines in Figure 1 of the drawings.

The keel member 2 is preferably formed from an integral flat cardboard blank and comprises a body portion 8 and depending keel portions 9 and 10 located respectively at the front end of the body portion 8 and adjacent the rear end thereof. The keel portion 9 is joined with the forward end of the body portion 8 by a connecting portion 11, and the said body portion 8 and keel portion 9 are separated rearwardly of the portion 11 by a slit 12 which is formed in the blank and which for a portion of its length extends on a straight line but throughout the rear portion of its length extends on an upwardly curved line as indicated by the numeral 13 so that a tongue 14 is provided at the rear end of the keel portion 9. In order to accommodate the keel portions of the keel member, the fold 3 of the body 1 is formed with slots 15 and 16, the slot 15 receiving the tongue 14, when the parts are assembled, and the slot 16 receiving the keel portion 10. In the assembled relation of the parts the lower edge of the body portion 8 of the keel member rests upon and within the fold 3, and the portion of the fold between the front end of the body 1 and the adjacent end of the slot 15 is received within the slit 12 in the keel member 2. In this manner an interlocking engagement is provided between the front portion of the keel member and the front portion of the body 1. In order that the rear portion of the keel member may be interlocked with the body, the rear edge of the keel portion 10 is formed with a notch 17 receiving the portion of the fold 3 which is located at the rear end of the slot 16. At this point it will be observed that the engagement of the tongue 14 in the slot 15 serves to prevent any forward displacement of the keel member 2 between the plies 4 of the body member 1, and that upward displacement of the rear end portion of the keel member 2 is prevented by the engagement of the fold 3 in the notch 17. Preferably the forward staple 5 is driven not only through the plies 4 of the body member 1 but also through the forward portion of the keel member 2 so as to further insure against disarrangement of the members 1 and 2 and also relieve of strain, to an extent, the tongue 14 and keel portion 10. It will now be observed that the keel member 2 is located practically bodily forwardly of a point midway between the ends of the body member 1 so that the weight of the material as a whole is so distributed so as to insure of travel of the toy a maximum distance when impelled. It will also be observed that the keel portions 9 and 10 project below the lower edge or fold of the body member 1 and therefore serve to maintain the toy in an upright position in its flight except when the rear end portions of the wings are deflected in the manner previously explained.

As a means for impelling the toy, a rubber band 18 is employed and is looped as at 19 through a perforation 20 formed in the forward portion of the keel part 9. In using the toy the free loop of the band 18 is engaged over the tip of the finger or over a small stick or lead pencil, the rear end of the body member 1 is grasped between the thumb and forefinger of the other hand and the band 18 is stretched, and finally the rear end of the body member is released thus permitting the band to impel the toy through the air.

Having thus described the invention what is claimed as new is:

1. A toy of the class described comprising a folded multi-ply body member, and a keel member disposed between the plies of the body member and having a keel portion projecting beyond the lower margin of the said body member.

2. A toy of the class described comprising a folded multi-ply body member, and a keel member disposed between the plies of the body member and received within the said fold and having a keel portion projecting through the fold and beyond the margin of the said body member.

3. A toy of the class described comprising a folded multi-ply body member, and a keel member disposed between the plies of the body member and resting within the said fold thereof, the body member being formed in its fold with a slot and the keel member being provided with a tongue having locking engagement in said slot.

4. A toy of the class described comprising a folded multi-ply body member formed in its fold with spaced slots, and a keel member disposed between the plies of the body member and within the fold and provided with a tongue having locking engagement in one of said slots and with a keel portion projecting through the other slot.

5. A toy of the class described comprising a folded multi-ply body member formed in its fold with spaced slots, and a keel member disposed between the plies of the body member and within the fold and provided with a tongue having lock engagement in one of said slots and with a keel portion projecting through the other slot, the said keel portion being formed in its edge with a notch having locking engagement with one end wall of the last mentioned slot.

6. In a toy of the class described, a folded multi-ply body member, and a keel member

disposed between the plies of the body member and within the said fold thereof, the fold being formed with a slot, the keel member being provided with a keel portion engaging about one end of the fold and extending longitudinally beneath the said fold, the said keel member being provided with another keel portion engaging in said slot.

7. In a toy of the class described, a folded multi-ply body member, and a keel member disposed between the plies of the body member and within the said fold thereof, the fold being formed with a slot, the keel member being provided with a keel portion engaging about one end of the fold and extending longitudinally beneath the said fold, the said keel member being provided with another keel portion engaging in said slot, the last mentioned keel portion being formed in its edge with a notch having locking engagement with one end wall of the said slot.

8. A toy of the class described comprising a folded multi-ply body having sustaining wing portions inclined outwardly from the upper edges of its plies, the fold of the body connecting the lower edges of the plies, a keel member disposed between the plies and resting within the fold, and means uniting the upper portions of the plies and constituting also means for securing the keel member in position.

In testimony whereof I affix my signature.

BERNARD K. HAUCK. [L. S.]