July 17, 1923. 1,462,244

W. A. PIPER ET AL.

TOY AEROPLANE

Original Filed Oct. 26, 1921 2 Sheets-Sheet 1

Fig. 1.

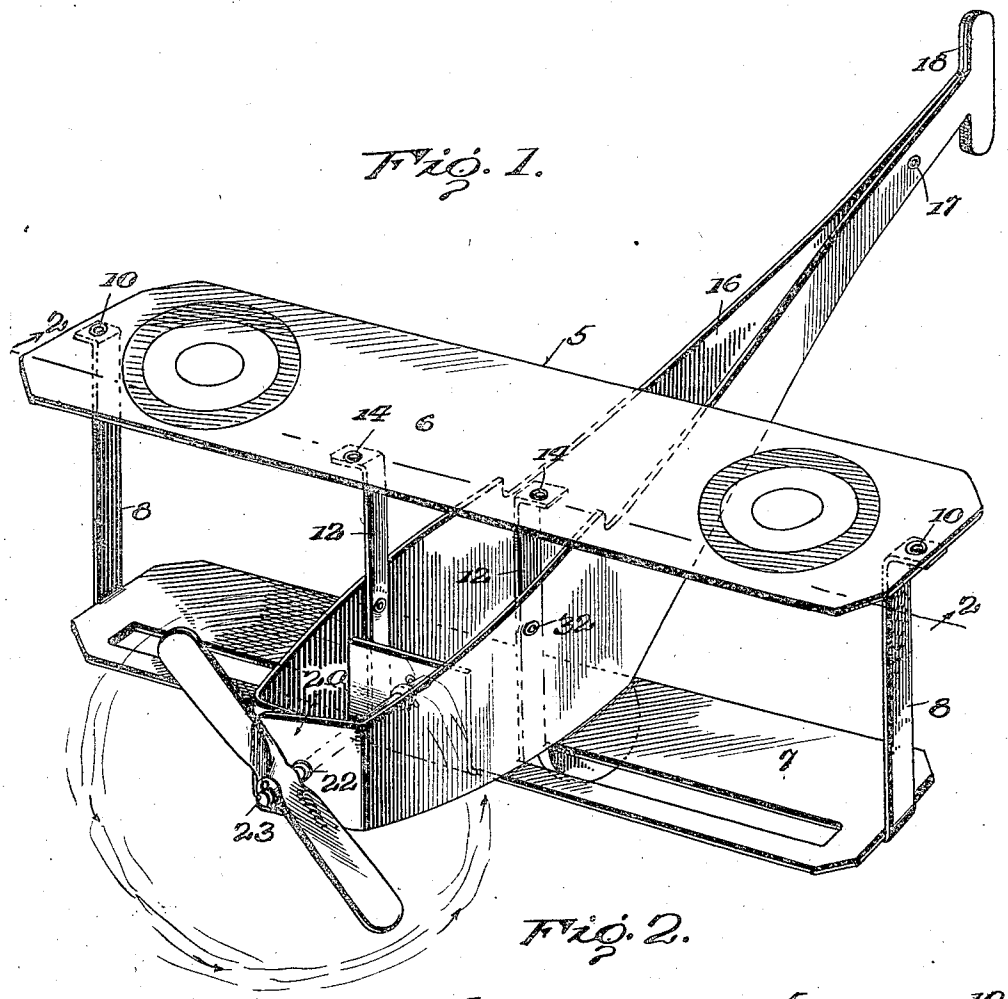
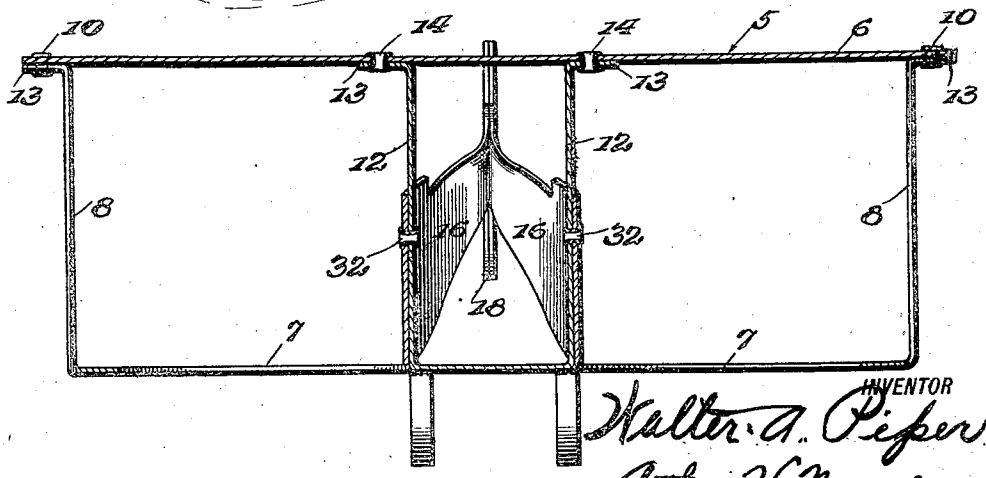


Fig. 2.



INVENTOR

Walter A. Piper

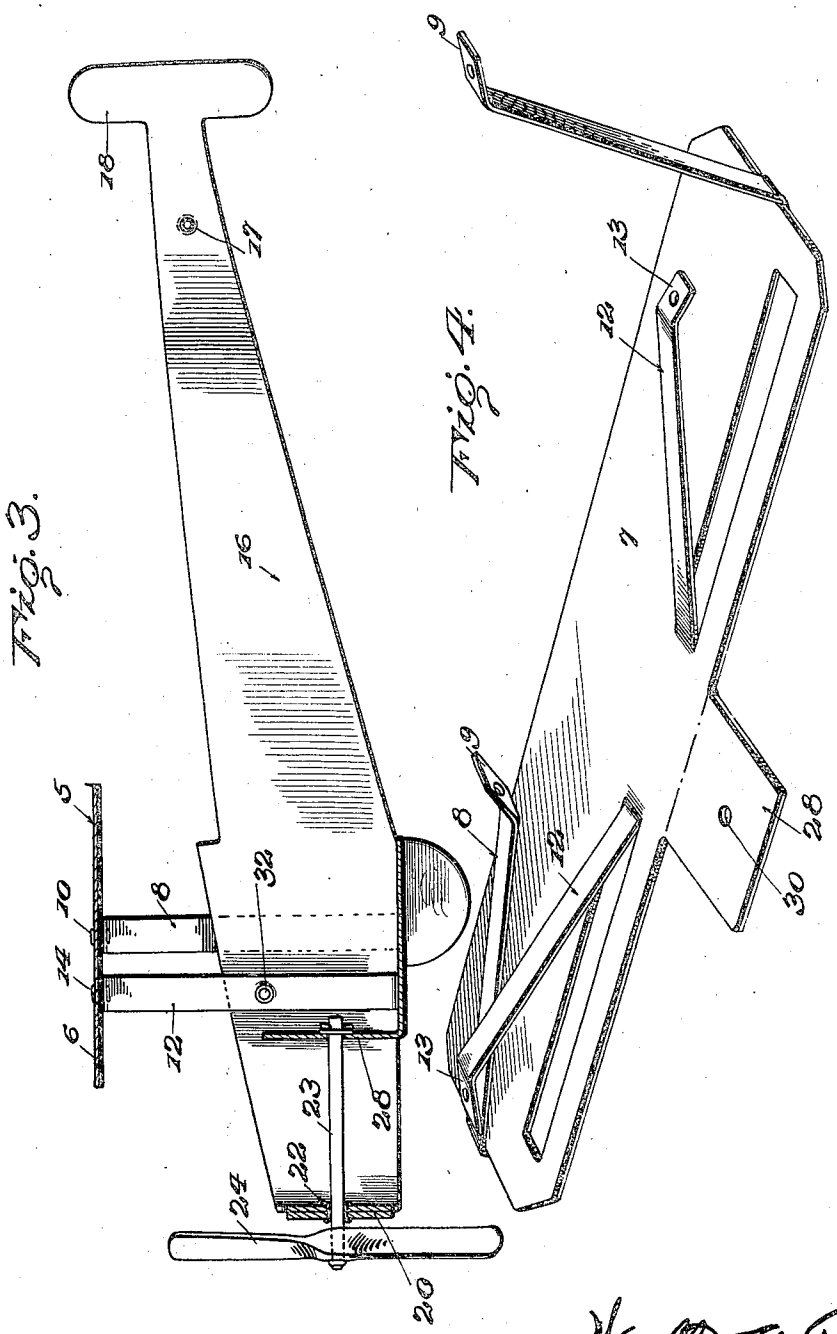
Arthur V Naegele

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Patented July 17, 1923.

1,462,244

UNITED STATES PATENT OFFICE.

WALTER A. PIPER AND ARTHUR V. NAEGELE, OF CHICAGO, ILLINOIS.

TOY AEROPLANE.

Application filed October 26, 1921. Serial No. 510,499. Renewed May 22, 1923.

To all whom it may concern:

Be it known that we, WALTER A. PIPER and ARTHUR V. NAEGELE, citizens of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Toy Aeroplanes, of which the following is a specification.

This invention relates to toys and more particularly to a miniature aeroplane.

An important object of the invention is to provide a miniature aeroplane constructed principally from blank cardboard and which is provided with novel means whereby the several parts of the same such as the struts, the wings and the fuselage are joined.

A further object of the invention is to provide a miniature aeroplane wherein the fuselage is formed of a pair of sections connected by an eyelet at their forward ends, said eyelets also forming a bearing for a propeller shaft.

A further object is to provide a miniature aeroplane which is neat in appearance, of highly simplified construction and cheap to manufacture.

Other objects and advantages of the invention will be apparent during the course of the following description.

In the accompanying drawing

Figure 1 is a perspective of the improved aeroplane.

Figure 2 is a vertical transverse sectional view taken on line 2—2 of Figure 1.

Figure 3 is a longitudinal sectional view through the aeroplane.

Figure 4 is a perspective of a blank from which one of the wings and struts are formed.

In the drawing the numeral 5 generally designates the improved aeroplane which is principally formed from card board and consists of upper and lower wings 6 and 7 respectively, the end portions of the lower wing 7 being provided with upwardly extending struts 8 having their terminal portions extended angularly as indicated at 9 and connected to the wing 6 by means of metallic eyelets 10. The metallic eyelets 10 which connect the struts 8 to the upper wing 7 are secured in position by means of tools or machines especially constructed for this purpose.

As illustrated in Figure 4 the lower wing 7 is provided with longitudinal and transverse incisions which provide partly severed portions constituting struts 12 which are bent upwardly and have their terminal portions 13 extended annularly and secured to the upper wing 6 by means of metallic eyelets 14 similar in construction to the metallic eyelets 10.

A fuselage is arranged between the upper and lower wings and includes a pair of sides 16 having their rear portions connected by metallic eyelets 17 and terminating in a tail 18. The forward portions of the sides 16 of the fuselage are extended inwardly and overlap as indicated at 20 and are securely connected by means of metallic eyelets 22 which not only serve as a means for connecting the overlapped end portions 20 but also as a means for rotatably supporting the shaft 23 of a propeller 24.

The forward longitudinal edge of the lower wing 7 is formed with an upwardly extending flap or support 28 having a metallic eyelet 30 which rotatably receives the rear portion of the shaft 23. With reference to the foregoing description taken in connection with the accompanying drawing, it will be seen that an aeroplane constructed in accordance with this invention may be cheaply manufactured by reason of the particular means employed for connecting the several parts. The metallic eyelets firmly and securely connect the several sections and provide a connection which is not easily broken by the use to which the aeroplane will naturally be subjected by children when playing with the same. The fuselage which includes the sides 16 may be connected to the intermediate portion of the struts 12 by means of metallic eyelets 32.

Having thus described the invention, what is claimed is:—

1. An aeroplane consisting of upper and lower wings, the lower wing being provided with upwardly extending struts having their end portions extended angularly, metallic eyes connecting the angularly extended end portions of said struts and the end portions of said upper wing, a fuselage arranged between said wings and having sides, the rear portions of said sides being connected by a metallic eyelet, said lower wing being provided with integral upwardly extending struts having their end portions extended angularly and in contact with the under side of said upper wing, metallic eyelets securing the angularly extended end portions of said second named struts to

the intermediate portion of said upper wing, the forward portions of said sides of the fuselage being overlapped, a metallic eyelet joining the overlapped ends of the sides of said fuselage and constituting a bearing, and a propeller shaft extended through said bearing.

2. An aeroplane consisting of upper and lower wings, the lower wing being provided with upwardly extending struts having their end portions extended angularly, metallic eyes connecting the angularly extended end portions of said struts and the end portions of said upper wing, a fuselage arranged between said wings and having sides, the rear portions of said sides being connected by a metallic eyelet, said lower wing being provided with integral upwardly extending struts having their end portions extended angularly and in contact with the under side of said upper wing, metallic eyelets securing the angularly extended end portions of said second named struts to the intermediate portion of said upper wing, the forward portions of said sides of the fuselage being overlapped, a metallic eyelet joining the overlapped ends of the sides of said fuselage and constituting a bearing, and a propeller shaft extended through said bearing, the forward longitudinal edge of the lower wing being provided with an upwardly extending portion having an opening, and a metallic eyelet carried by said upwardly extending portion and rotatably receiving said shaft.

3. An aeroplane consisting of upper and lower wings, the lower wing being provided with upwardly extending struts having their end portions extended angularly, metallic eyes connecting the angularly extended end portions of said struts and the end portions of said upper wing, a fuselage arranged between said wings and having sides, the rear portions of said sides being connected by a metallic eyelet, said lower wing being provided with integral upwardly extending struts having their end portions extended angularly and in contact with the under side of said upper wing, metallic eyelets securing the angularly extended end portions of said second named struts to the intermediate portion of said upper wing, the forward portions of said sides of the fuselage being overlapped, a metallic eyelet joining the overlapped ends of the sides of said fuselage and constituting a bearing, a propeller shaft extended through said bearing, the forward longitudinal edge of the lower wing being provided with upwardly extending portions having an opening, a metallic eyelet carried by said upwardly extending portion and rotatably receiving said shaft, and a propeller secured to said shaft.

4. An aeroplane comprising upper and lower wings, a fuselage arranged between the wings and having spaced sides provided with inwardly extending overlapped forward end portions, a metallic eyelet connected to the overlapped end portions of the sides of said fuselage and having an opening, a propeller shaft extended through said opening, and a propeller connected to said shaft.

5. An aeroplane comprising upper and lower wings, a fuselage arranged between the wings and having spaced sides provided with inwardly extending overlapped forward end portions, a metallic eyelet connected to the overlapped end portions of the sides of said fuselage and having an opening, a propeller shaft extended through said opening, a propeller connected to said shaft, the forward longitudinal edge portion of said lower wing being provided with upwardly extending portions, and a metallic eyelet carried by said upwardly extending portion and rotatably receiving said shaft.

In testimony whereof, we have affixed our signatures in the presence of two witnesses.

WALTER A. PIPER.
ARTHUR V. NAEGELE.

Witnesses:
CATHERINE FOLEY,
CHARLES A. KLAPPAUF.