

Sept. 23, 1947.

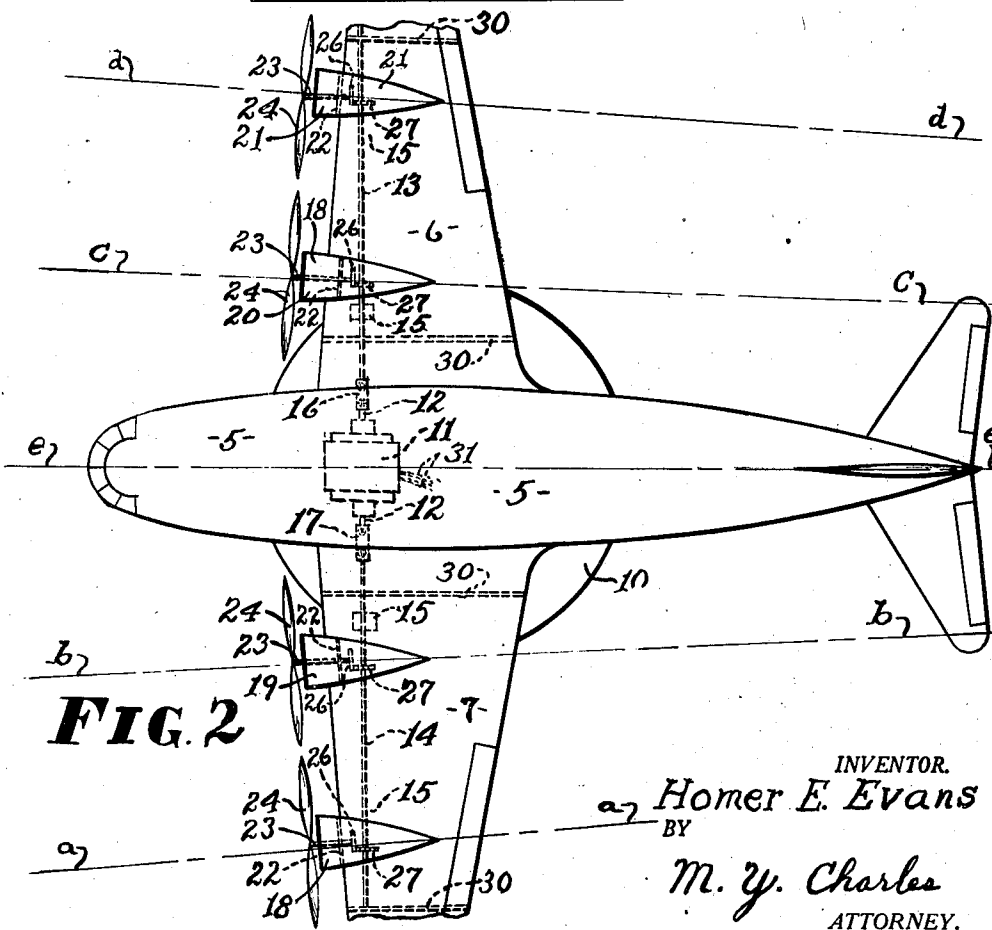
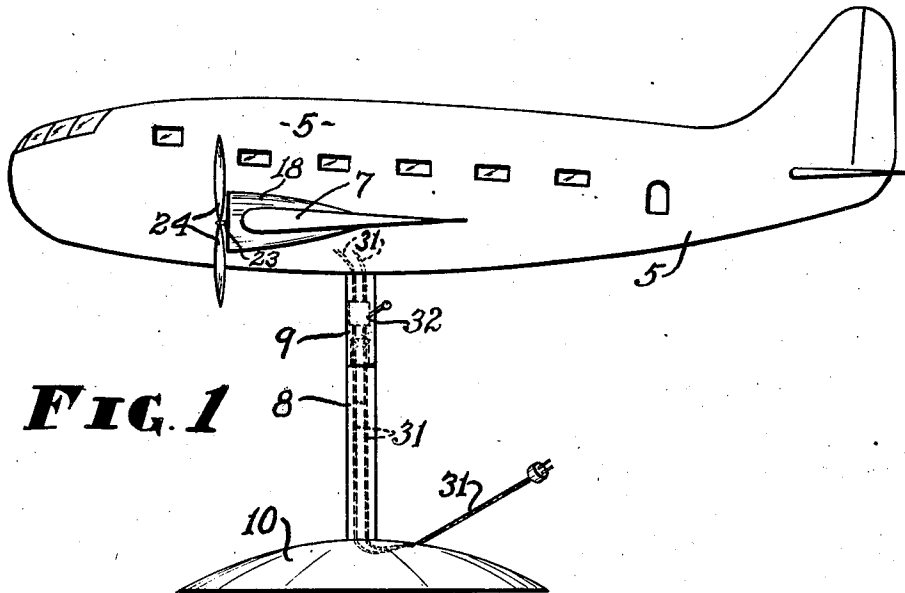
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2,427,952

MODEL AIRPLANE FAN DEVICE

Filed Nov. 13, 1945

2 Sheets-Sheet 1



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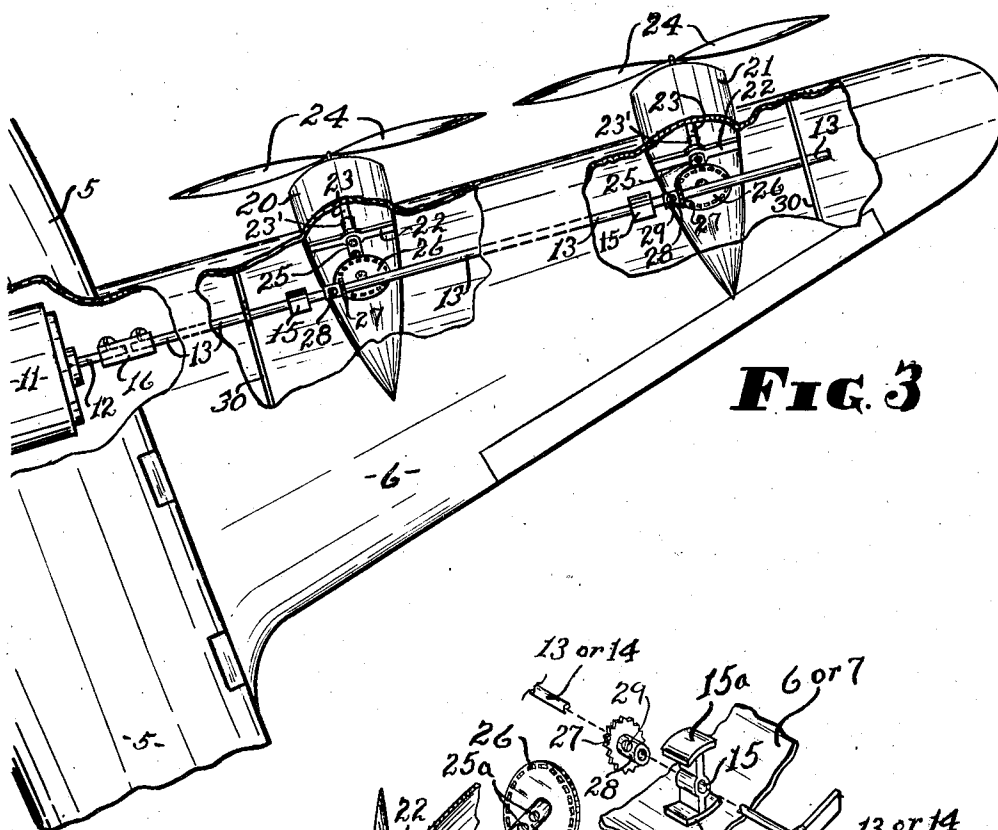


FIG. 3

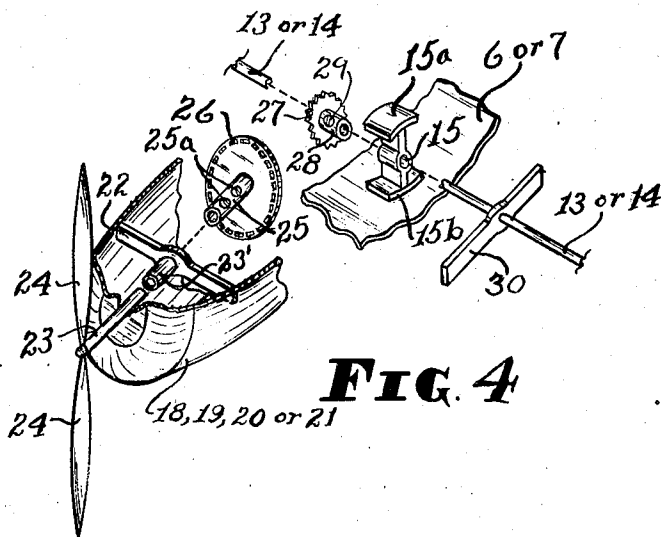


FIG. 4

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MODEL AIRPLANE FAN DEVICE

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3 Claims. (Cl. 230—259)

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My invention relates to an improvement in model airplane fan devices. The object of my invention is to provide a model airplane having representation of a plurality of engines and propellers thereon that are driven from a single source of power and act as fans.

A further object is to provide a model airplane of the kind mentioned that is supported on a swivel standard so the airplane can be turned in any desired direction.

A still further object is to provide a model airplane of the kind mentioned, the motor representations and propellers are positioned out of parallelism with each other so as to increase the scope of the moving draft of air being moved by the propeller fans.

A still further object is to provide a model airplane of the kind described that may be used for advertising purposes.

A still further object is to provide a model airplane of the kind mentioned that is simple in construction, one that is inexpensive, and that is durable and long lived. These and other objects will be more fully described as this description progresses.

Now referring to the accompanying drawings in which similar numerals of reference designate the same parts throughout the several figures of the drawings:

Fig. 1 is a side view of the model airplane fan device.

Fig. 2 is a top plan view of the model airplane device.

Fig. 3 is an enlarged detail view showing the assembly of the working parts of the machine.

Fig. 4 is an expanded detail perspective view of the propeller drive mechanism.

In the drawings is shown the model airplane as having a body section 5 and wings 6 and 7 positioned one on either side of the body portion 5. The model airplane is supported on a tubular standard 8 that is provided with a tubular swivel extension portion 9, the upper end of which is rigidly attached to the under side of the body portion 5 of the model airplane. The lower end of the tubular standard 8 is rigidly mounted on a heavy foot or base element 10.

Rigidly mounted in the forward portion of the body 5 is an electric motor 11 of the type in which the drive shaft 12 projects on opposite ends of the motor.

In the wings 6 and 7 are drive shafts 13 and 14 that are in axial alignment with the motor drive shaft 11, and are revolvably carried in bearings 15 having upper and lower portions 15a and 15b

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that are fashioned to fit between and against the upper and lower sides of their respective wing 6 or 7. The inner ends of the drive shafts 13 and 14 terminate in shaft couplings 16 and 17 that are carried on opposite ends of the motor 11, drive shaft 12, so that the motor drive shaft 12 will revolvably drive both shafts 13 and 14 alike.

Formed on the wings 6 and 7 are motor housings representations, 18, 19, 20 and 21, in each of which has a bearing support 22 carried therein and in the bearing support is a bearing sleeve 23 in which is revolvably carried a propeller or fan shaft 23, and on the outer end of each propeller or fan shaft 23 is rigidly mounted a propeller or fan element 24.

Rigidly mounted on the rear end of each propeller or fan belt 23 is a sleeve 25 that is provided with set screws 25a for binding the sleeve 25 to the shaft 23, and integrally formed on and about the center axis of a perforated pinion or disk 26.

Working in each perforated pinion 26 is a pin wheel 27 on which is integrally formed a hub sleeve 28 through which the drive shaft 12 or 14 passes. The hub sleeve 28 is provided with a set screw 29 that engage and bears against the drive shaft 13 or 14 to rigidly bind and hold the hub sleeve 28 and pin wheel 27 on the drive shaft 13 or 14 for driving purposes.

The outer ends of the drive shafts 13 and 14 are revolvably carried in bearing elements 30 that are supported by the adjacent structure of the wings 6 and 7.

An electric cord 31 passes through the base 10 and up through the standard 8—9 in which a control switch 32 in the electric line 31 is located for the control of the electric motor 11.

The axes *a*, *b*, *c*, and *d* of the several shafts 23 converge to a point on the center axis *e* in the rear of the airplane, therefore the draft of air discharged from each propeller or fan will be in a different horizontal radial direction, therefore a large horizontal area will be covered by the composite discharge from all of the fans 24.

The foregoing described device may be a replica of any particular machine that is manufactured and may therefore be used for advertising purposes of that machine; or the device may be used as advertising for certain air lines of travel.

Depending on the size in which the device is made, the device may still be used for advertising purposes and still be small enough to be used on an office desk, or still smaller sizes, minus the

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working mechanical parts, may be used as paper weights and the like.

Such modifications of my invention may be employed as lie within the scope of the appended claims without departing from the spirit and intention of the invention. Now having fully shown and described my invention, what I claim is:

1. In a model air-plane fan device of the kind described; the combination of a replica of an air-plane fuselage and wing elements carried thereby, and adjustable support means therefor and attached thereto, a power unit, said power unit being carried in the said fuselage, engine housing representations, said engine housing representations being spaced apart and carried on said wings, a pair of drive shafts, said drive shafts being positioned, one in each wing and being connected, one to each end of the drive shaft of the power unit, a plurality of propeller shafts, one for and revolvably carried in each of said engine housing representations, each propeller shaft having a gear thereon and said drive shafts having gears thereon, one for and in engagement with each propeller shaft gear, and propeller like elements, one on each propeller shaft as an air moving means for fan purposes, and means for controlling the operation of the power unit.

2. In a model air-plane fan device of the kind described; the combination defined in claim 1, said combination being further characterized by

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the said power unit being an electric motor and the means for controlling the power unit being an electric circuit in which the electric motor is included, and said electric circuit having a switch therein for making and breaking the circuit.

3. In a model air-plane fan device of the kind described; the combination defined in claim 1, said combination being further characterized by the said propeller shafts being positioned at angles acute to the center longitudinal axis of the fuselage to broaden the scope of the air being moved by the several fans.

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