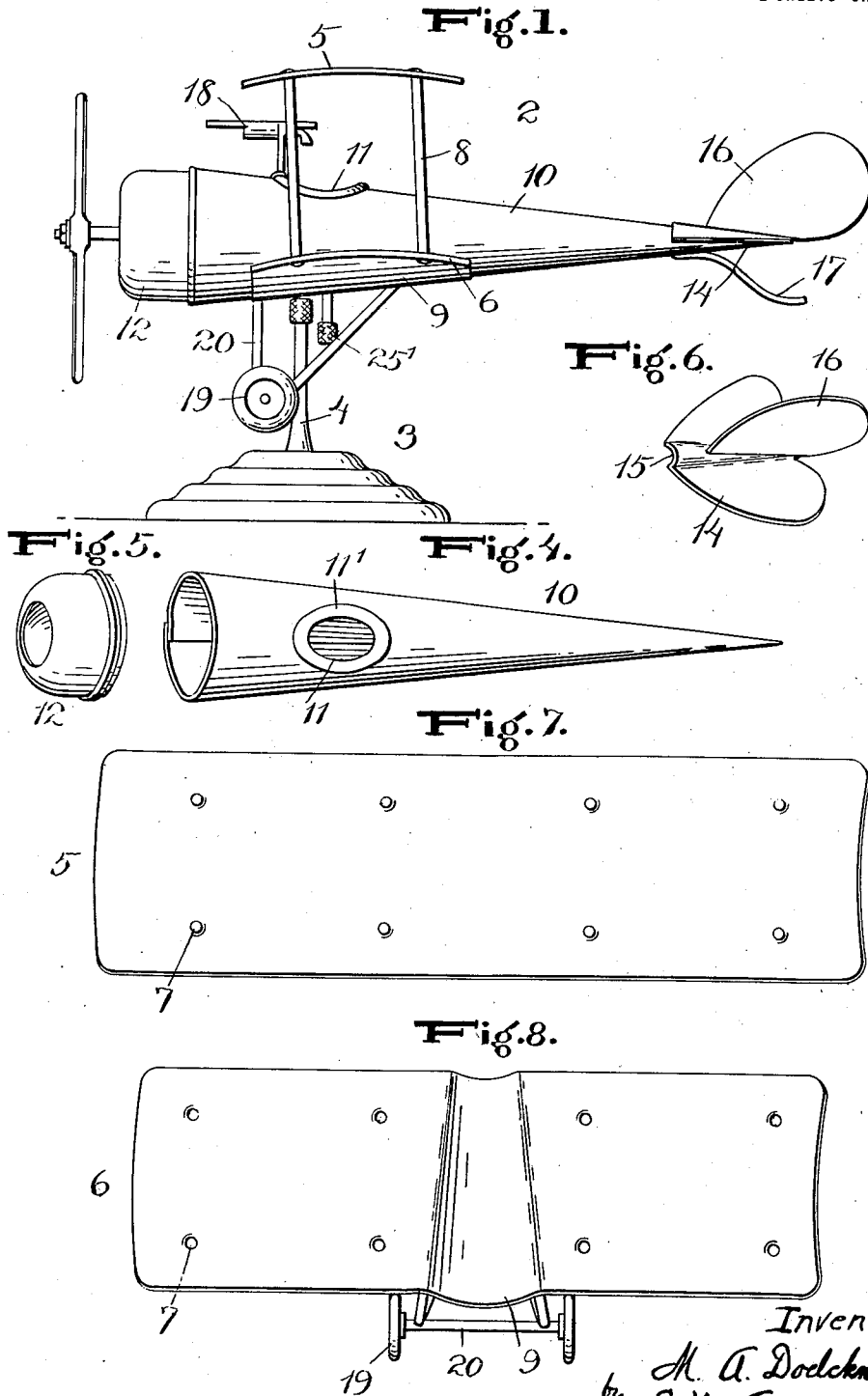


M. A. DOELCKNER.
TOY FLYING MACHINE.
APPLICATION FILED AUG. 25, 1919.

1,328,134.

Patented Jan. 13, 1920.
2 SHEETS—SHEET 1.



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Fig. 2.

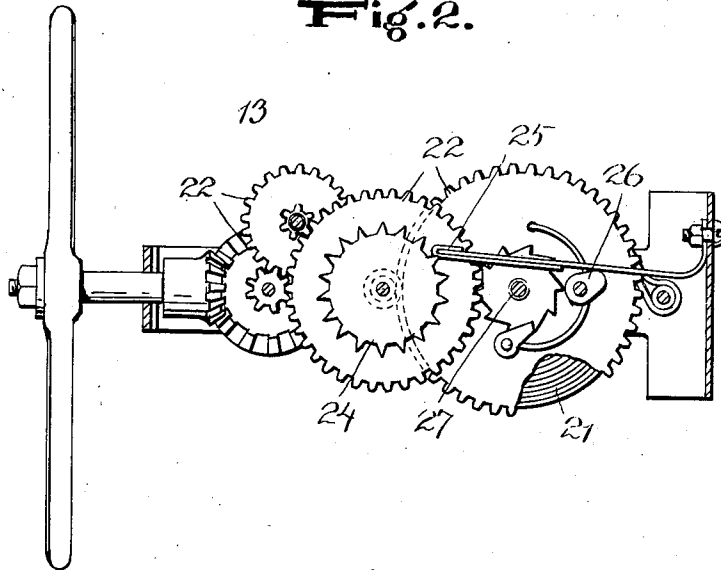
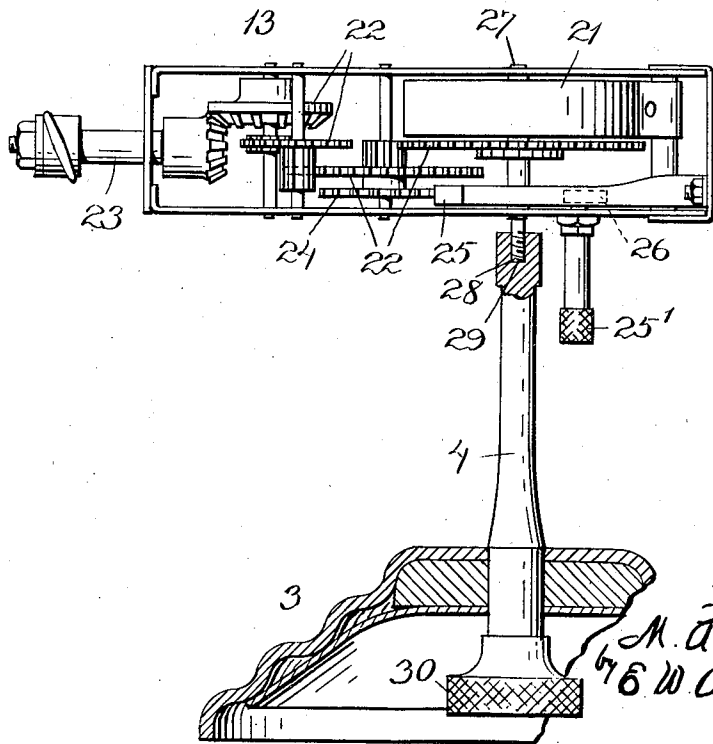


Fig. 3.



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UNITED STATES PATENT OFFICE.

MAX A. DOELCKNER, OF LOUISVILLE, KENTUCKY.

TOY FLYING-MACHINE.

1,328,134.

Specification of Letters Patent.

Patented Jan. 13, 1920.

Application filed August 25, 1919. Serial No. 319,590.

To all whom it may concern:

Be it known that I, MAX A. DOELCKNER, a citizen of the United States, resident of Louisville, in the county of Jefferson and State of Kentucky, have made a certain new and useful invention in Toy Flying-Machines; and I declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it appertains to make and use the invention, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 is a side view of the invention.

Fig. 2 is a detail plan view of the gearing showing the knocker.

Fig. 3 is a detail side view of the same, including the base.

Fig. 4 is a detail perspective view of the plane body.

Fig. 5 is a similar view of the cap.

Fig. 6 is a similar view of the tail fins.

Fig. 7 is a detail bottom plan view of the upper plane.

Fig. 8 is a detail plan view of the lower plane showing the carrying wheels.

The invention has relation to toys, having for its object to provide a toy having the form of an air ship of aeroplane type, capable of economical manufacture and assembly, which is rotatable upon a fixed stem or axis, or revoluble around said axis, and which provides an attractive ornament and means of amusement.

The invention consists in the novel construction and combinations of parts, as hereinafter set forth.

In the accompanying drawings illustrating the invention, the numeral 2 designates the aeroplane and, 3 the stationary base having a vertical fixed stem 4, upon or around which the aeroplane rotates or revolves.

It is first necessary to devise a simple and practical manner of constructing the aeroplane and to this end, the upper and lower planes 5 and 6 are each stamped from a single piece of sheet metal in completed form in one stamping, each plane having seats 7 stamped therein without perforation of the metal, said seats adapted to receive the ends of the uprights or posts 8 connecting the planes together, said uprights being

soldered at their ends in said seats, and the lower plane having a central transverse concave seat 9 formed therein simultaneously with the stamping, for the reception of the body 10 of the plane. This body is of conical form, the blank therefor being stamped in one operation to include a top opening 11, having an ornamental raised margin 11', said blank being bent around a suitable conical mandrel and being lapped at the edges and soldered at the lap. A circular rounded cap 12 is fitted to the open larger end of said body and completes the same, said cap being spun from a single piece of sheet metal. A spring motor 13 is inserted within said body prior to placing the cap in position, said motor being suitably held against rotation within the body. A transverse double horizontal tail fin 14 is stamped from a single piece of sheet metal, with a central longitudinal concavity 15 fitting over the tail of said body and soldered thereto, a single vertical fin 16 being soldered in position between the horizontal fins. A supporting spring 17 is soldered in position below the tail fins, and a gun 18 is secured in position in front of the opening of the body, which is designed for the accommodation of the pilot. The wheels 19 are carried by a frame 20, which is soldered to the lower plane.

The motor includes the main spring 21, attached at one end to the motor frame and having a gear train 22 driving the propeller shaft 23, said gear train also driving a toothed wheel 24, against which a spring knocker 25 has bearing; to simulate the exhaust of an explosive engine in action. An adjusting handle device 25' is rotatable to press the spring knocker away from the toothed wheel, through cam 26 of said device, the knocker being then out of action and capable of being brought into action as desired.

The motor frame and the aeroplane rotate as a whole, under the influence of the motor spring, upon a stationary stem 27, having end bearings in the motor frame and passing through the center of and attached to the motor spring, said stem having a lower thread 28 engaging a threaded seat 29 at the upper end of the stem 4; and to facilitate winding the spring, the base 3 which is weighted, is dished, and the stem 4 is pro-

vided with a knurled handle 30, adapted to be grasped between thumb and finger, and located within the concavity of said base.

I claim:—

- 5 1. A toy flying machine having a stationary base dished at the bottom, a stationary standard carried thereby, a body, a spring motor carried thereby and provided with a frame rotatably mounted upon said stand-
10 ard, the spring of said motor having at one end connection with said standard and at its other end being connected to said frame whereby the motor and body are rotated as the spring unwinds, a propeller having a
15 shaft provided with a gear train connection with said spring and rotating simultaneously with the rotary movement of said body and motor, a toothed wheel driven by said gear train, and a knocker device engaging
20 said toothed wheel, said standard having a winding handle for the spring located within the dished bottom of said base.

2. A toy flying machine having an upper plane stamped from a single sheet of metal

and provided with spaced seats stamped 25 therein, a lower plane similarly made and provided with a transverse concavity stamped centrally thereof, posts soldered at their ends within the seats of the upper and lower planes, a body of conical form made of 30 a single piece of sheet metal lapped at the joint, said body fitting and soldered in said transverse concavity, a horizontal body fin of double form having a longitudinal concavity fitting over and soldered to the 35 pointed end of said body, a vertical tail fin attached centrally to said horizontal fin, a motor fitting in the larger end of said body, and a cap piece for said open end spun from a single piece of sheet metal. 40

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

MAX A. DOELCKNER.

Witnesses:

EUGENE G. HEIBLARD,
J. K. AXY,
JAMES W. GARRISON.