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FLYING SAUCER TOY

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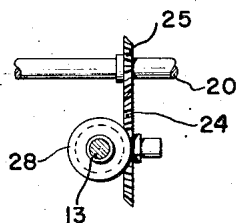
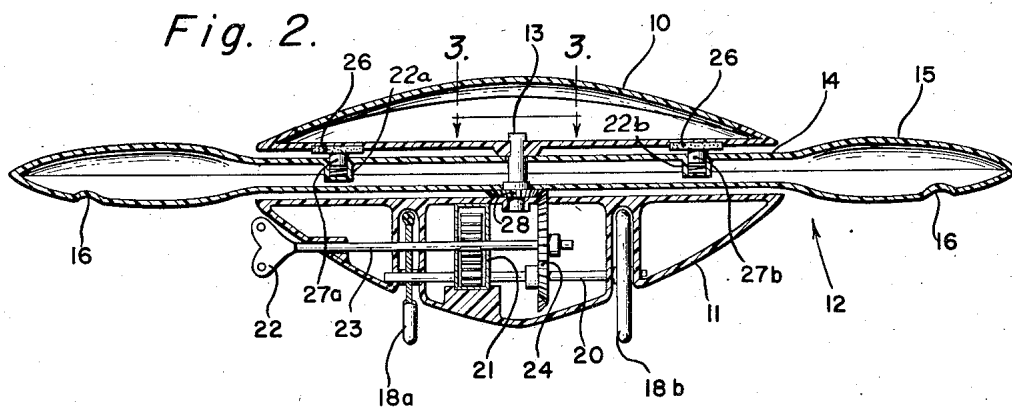
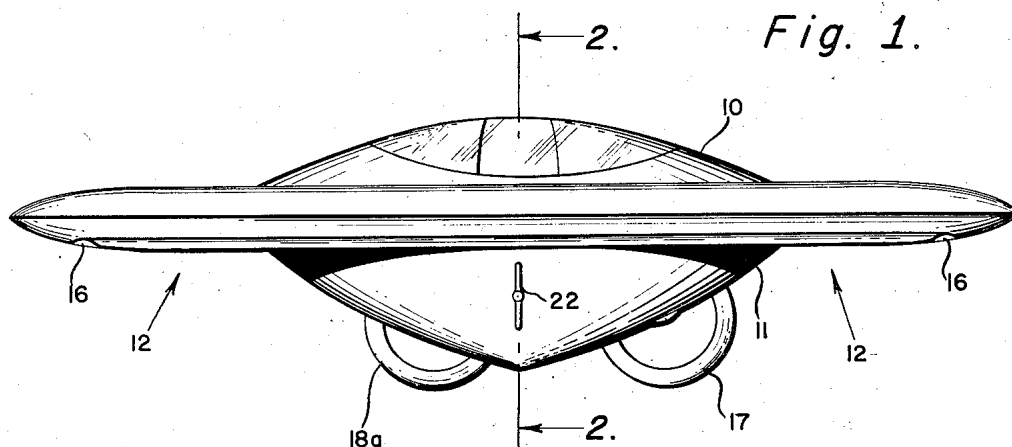


Fig. 3.

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FLYING SAUCER TOY

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1 Claim. (Cl. 46—10)

The present invention relates to toys in general and more particularly relates to a flying saucer toy wherein the spinning of a saucer-shaped member produces an emission of sparks and a whistling sound.

It is an object of the present invention to provide a flying saucer toy wherein a saucer-shaped member is rotated at a relatively high speed when the toy is propelled forward.

It is another object of the present invention to provide a flying saucer toy wherein the spinning of a saucer-shaped member produces a whistling sound that simulates travel at high speeds through the atmosphere.

It is a further object of the present invention to provide a flying saucer toy wherein the spinning of a saucer-shaped member produces both an emission of sparks and a whistling hum that simulates high speed flying.

With the above and other objects in view, the invention resides and consists in the construction and novel combination and arrangement of parts hereinafter to be more fully described, illustrated in the accompanying drawings, and pointed out in the claim hereto appended, it being understood that various changes in the form, proportion, size and minor details of construction within the scope of the claim may be resorted to without departure from the spirit or sacrificing any of the advantages of the invention.

Fig. 1 is an elevation view of a preferred embodiment of a flying saucer toy according to the present invention;

Fig. 2 is a cross-sectional view, taken along the lines 2—2, of the flying saucer toy shown in Fig. 1; and

Fig. 3 is a top view of the gearing arrangement shown in Fig. 2, taken along the lines 3—3.

Referring now to the drawings, there is shown in Figs. 1 and 2 a flying saucer toy, according to the present invention, comprising a cabin member 10, a fuselage member 11 and a saucer-shaped member, generally designated 12, each member preferably having the configuration shown in the figures.

Cabin member 10 is preferably hollow and, as shown in Fig. 2, is fixedly mounted on the upper end of a shaft 13. Similarly, fuselage member 11 is also preferably hollow and fixedly mounted on the lower end of shaft 13. Finally, saucer-shaped member 12 is preferably hollow and rotatably mounted on shaft 13 between cabin and fuselage members 10 and 11, respectively, and contiguous thereto. Considering saucer-shaped member 12 in greater detail, the member includes a disc-shaped inner portion 14 and a doughnut-shaped outer portion 15 integral with and extending from said inner portion, as shown in Fig. 2. Outer portion 15 has a plurality of orifices 16 therethrough disposed about the periphery thereof. The particular functions of doughnut-shaped member 15 and orifices 16 will be explained below when the operation of the toy is taken up for consideration.

The flying saucer toy is supported by a plurality of wheels rotatably mounted on fuselage member 11 and when these wheels are caused to rotate, the toy is propelled forward. There are preferably three wheels, a

front wheel 17 and two rear wheels 18a and 18b, the rear wheels only providing the propelling force. More specifically, rear wheels 18a and 18b are fixedly mounted on opposite ends of an axle 20 which, in turn, is rotatably mounted on fuselage member 11 in the manner shown in Fig. 2. When axle 20 is made to rotate, wheels 18a and 18b are thereby forced to rotate also. Axle 20 is made to rotate by means of a spring motor 21 which is rigidly mounted in the hollow of fuselage member 11 and which is mechanically coupled to the axle by a simple gear arrangement. The spring of motor 21 is wound up by means of a key 22 which is positioned outside fuselage member 11 and which is rigidly mounted on one end of a rotatable shaft 23 which mechanically couples the key to the spring.

Referring now to the gear arrangement by which axle 20 is coupled to motor 21, a miter gear 24 is fixedly mounted on the other end of shaft 23. This miter gear meshes with another miter gear 25 fixedly mounted on axle 20. Miter gear 25 cannot be seen in Fig. 2 because miter gear 24 is in the way but miter gears 24 and 25 are both clearly shown in Fig. 3. Thus, when miter gear 24 rotates, it causes miter gear 25 to rotate which rotates axle 20 and, thereby, wheels 18a and 18b. Along the surface of cabin member 10 that faces saucer-shaped member 12, there is mounted an annular ring of abrasive material 26, such as Carborundum. Two pieces of flint 27a and 27b are in frictional engagement with abrasive material 26 on opposite sides of the annular ring. Thus, when saucer-shaped member 12 is caused to rotate, flint pieces 27a and 27b rub against abrasive material 26 so that sparks are thereby produced. Saucer-shaped member 12 is made to rotate by motor 21 which is mechanically coupled to member 12 through miter gear 24 and a miter gear 28 which meshes with miter gear 24, as clearly shown in Figs. 2 and 3. Miter gear 28 is rigidly mounted on saucer-shaped member 12 between member 12 and fuselage member 11 and is rotatable about shaft 13, as shown in Fig. 2. To keep at all times flint pieces 27a and 27b are spring mounted in detents 22a and 22b, respectively, on member 12.

With respect to saucer-shaped member 12, orifices 16 and doughnut-shaped outer portion 15 cooperate, when member 12 is rotated, to produce a whistling sound that simulates high-speed travel through the atmosphere. More specifically, orifices 16 catch the air flowing by and force the air into the hollow of outer portion 15 wherein the air vibrates, thereby causing the whistling hum.

Considering now the operation of the toy, key 22 is normally rotated until the spring of motor 21 is wound. At this point, key 22 is released and, as a result, the spring of motor 21 begins to unwind and in so doing causes shaft 23 and, therefore, miter gear 24 to rotate. The rotation of miter gear 24 causes miter gears 25 and 28 to rotate. In consequence thereof, wheels 18a and 18b and saucer-shaped member 12 are made to rotate.

The rotation of wheels 18a and 18b propels the toy forward. On the other hand, the rotation of member 12 causes sparks and a whistling sound to be produced for the reasons previously mentioned. The sparks thus produced are emitted from the space between cabin and saucer-shaped members 10 and 12, respectively.

The toy continues to be propelled forward and the sparks and whistling sound continue to be produced so long as wheels 18a and 18b and saucer-shaped member 12 continue to rotate and they rotate until motor 21 is totally deenergized. When this occurs, motor 21 is again wound and the operation of the toy is repeated as described.

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

A flying saucer toy comprising: a central shaft; a hollow cabin member fixedly mounted on one end of said shaft; a hollow fuselage member fixedly mounted on the other end of said shaft; a hollow saucer-shaped member rotatably mounted on said shaft between said cabin and fuselage members and contiguous thereto, said saucer-shaped member including a disc-shaped inner portion and a doughnut-shaped outer portion integral with and extending from said inner portion and having orifices therethrough disposed about the periphery thereof, said doughnut-shaped outer portion and said orifices being operative when said saucer-shaped member is spun about said shaft to produce a whistling sound simulating high-speed travel through the atmosphere; an annular ring of abrasive material mounted on said cabin member on the side thereof contiguous to said saucer-shaped member; at least one piece of flint spring-mounted on said saucer-shaped member on the side thereof contiguous to said cabin member, said flint being positioned for frictional engagement with said abrasive material for producing an emission of sparks when said saucer-shaped

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member is spun about said shaft as an axis; a plurality of wheels rotatably mounted on said fuselage member; and a motor for rotating said wheels, whereby the toy is propelled forward, and for spinning said saucer-shaped member about said shaft, said motor being mounted within said fuselage member and mechanically coupled by means of a suitable gearing arrangement to said wheels and saucer-shaped member.

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