July 25, 1961 A. SAASTAMO 2,993,296

TOYS

Filed June 29, 1959

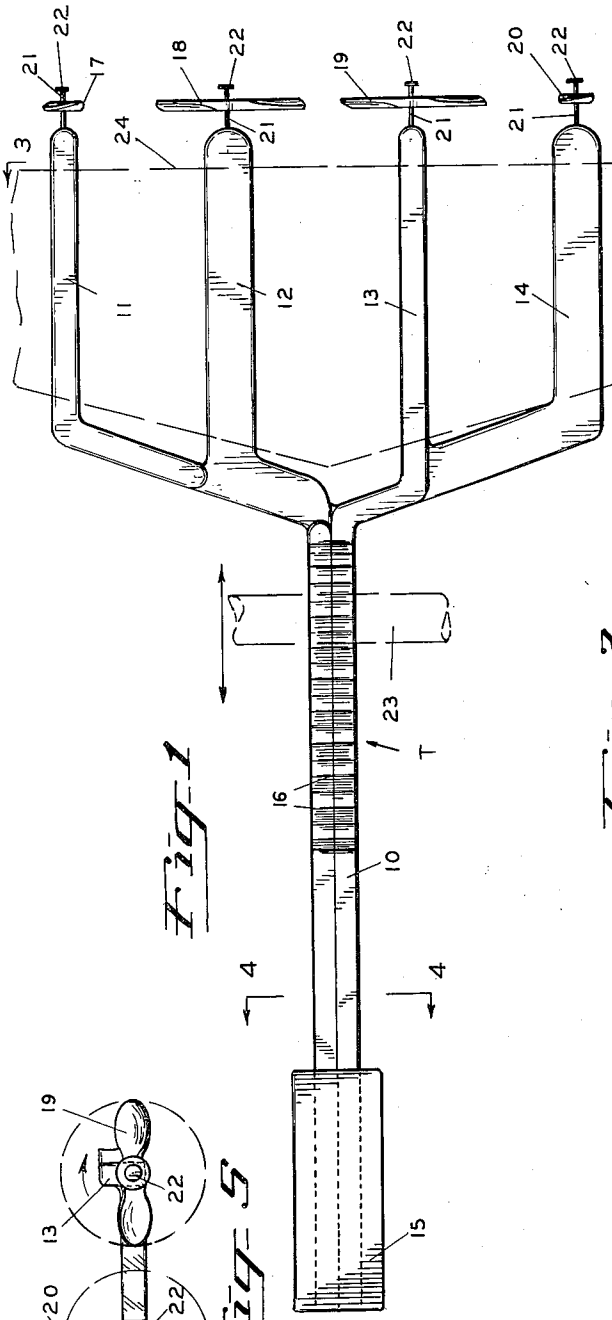


Fig. 1

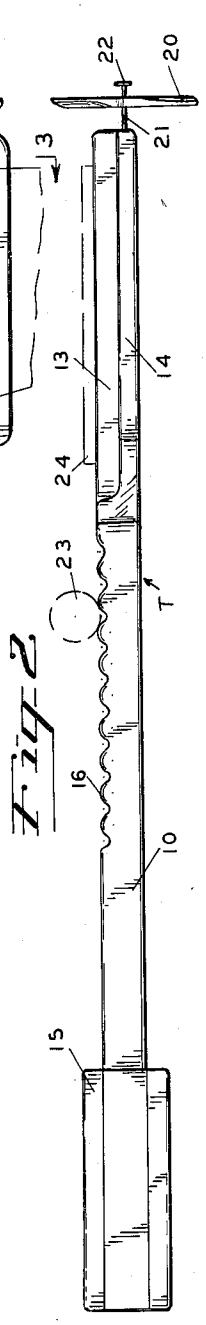


Fig. 2

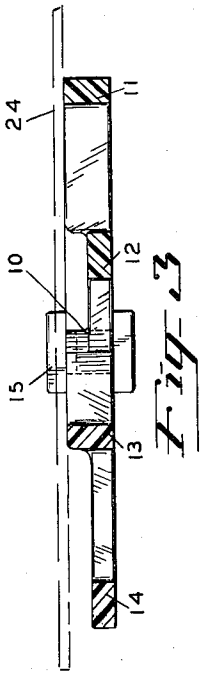


Fig. 3

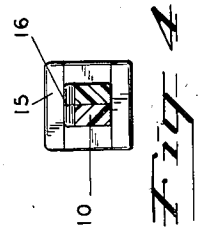


Fig. 4

Fig. 5

INVENTOR.
ARMAS SAASTAMO

BY

Kimmel & Crowell
ATTORNEYS

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Armas Saastamo, 957 Butte Hill Road, Woodland, Wash.

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1 Claim. (Cl. 46—47)

The present invention relates to improvements in toys, and particularly to toys of the type including spinning propellers.

The primary object of the invention is to provide a novel means of rotating propellers through the principle of vibration wherein a plurality of propellers will rotate in opposite directions. It has been found that propellers journalled on a bar or system of bars may be rotated by causing a vibration to be imparted to the bar while being held by the operator. As stated above, the design of the propeller holding bars is such that this vibration will cause the propellers to rotate in opposite directions to one another.

Other objects and advantages will become apparent in the following specification when considered in light of the attached drawings, in which:

FIGURE 1 is a plan view of the invention;

FIGURE 2 is a side view of the structure seen in FIGURE 1;

FIGURE 3 is an enlarged fragmentary sectional view, taken on line 3—3 of FIGURE 1, looking in the direction of the arrows;

FIGURE 4 is an enlarged transverse sectional view, taken on line 4—4 of FIGURE 1, looking in the direction of the arrows; and

FIGURE 5 is a fragmentary front elevation looking towards a pair of propellers.

Referring now to the drawings in detail wherein like reference characters indicate like parts throughout the several figures, the reference character T indicates generally a toy constructed in accordance with the invention.

The toy T includes an elongated bar 10 having one end which terminates in a series of forwardly extending parallel bars or fingers 11, 12, 13 and 14.

The opposite end of the bar 10 is formed into a handle portion 15. The bar 10 intermediate the fingers 11, 12, 13, 14 and the handle 15 has corrugations 16 formed along the upper surface thereof.

Propellers 17, 18, 19 and 20 are rotatably mounted to the tips of the fingers 11, 12, 13 and 14, respectively, on spindles 21. The spindles 21 are driven into the fingers 11, 12, 13 and 14 and have heads 22 associated therewith for holding the propellers 17, 18, 19 and 20 in place.

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Referring particularly to FIGURE 3, it will be noted that the fingers 11, 12, 13 and 14 are formed rectangular in cross section. The fingers 11 and 13 have their longer sides disposed vertically while the fingers 12 and 14 have their longer sides disposed horizontally. With the fingers 11, 12, 13 and 14 arranged in this manner, the propellers 17, 18, 19 and 20 will be made to rotate in opposite directions to one another when a bar 23, illustrated in broken lines, held by the operator is rubbed over the corrugated surface 16 of the bar 10 in a quick backward and forward movement.

In other words, the propellers 17 and 19 will be caused to rotate in one direction, and the propellers 18 and 20 will be rotated in the opposite direction.

Broken lines 24 illustrate the position that could be assumed by an airplane wing attached thereto so that the entire device could represent an airplane, tail surface not here shown could be added to carry out the simulation of an airplane.

Having thus described the preferred embodiment of the invention, it should be understood that numerous structural modifications and adaptations may be resorted to without departing from the scope of the appended claim.

What is claimed is:

A toy comprising an elongated generally rectangular bar, a handle mounted on one end of said bar, a plurality of surface corrugations formed in one face of said elongated bar, a plurality of spaced parallel fingers rigidly secured to the end of said bar opposite said handle, a plurality of propellers, and means journalling one of said propellers to the end of each of said fingers opposite said bar, said plurality of fingers having a substantially flat form with a pair of said fingers arranged in horizontal relation, and a second pair of said fingers arranged in an upright relation, the fingers of each pair being alternately spaced, said propellers being rotatable upon vibration of said bar by contact between a tool and said corrugations, said position of said fingers causing the propellers on the fingers arranged in horizontal relation to rotate in one direction and the propellers on the fingers arranged in upright relation to rotate in the opposite direction.

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