Dec. 19, 1933. B. L. FRAZIER 1,940,490

ORNAMENTAL DEVICE FOR RADIATOR CAPS

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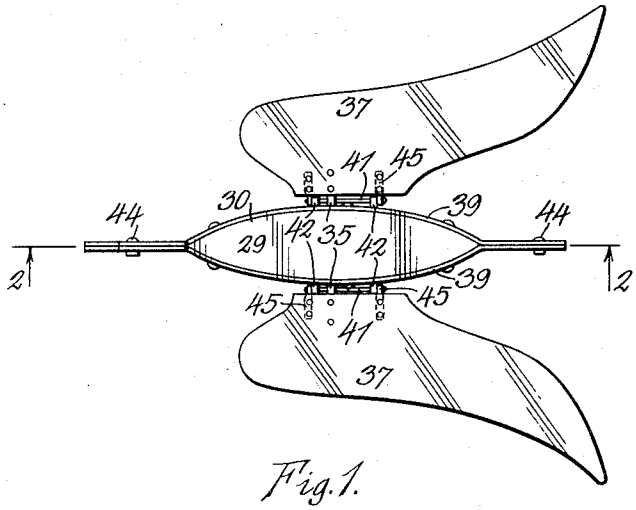


Fig. 1.

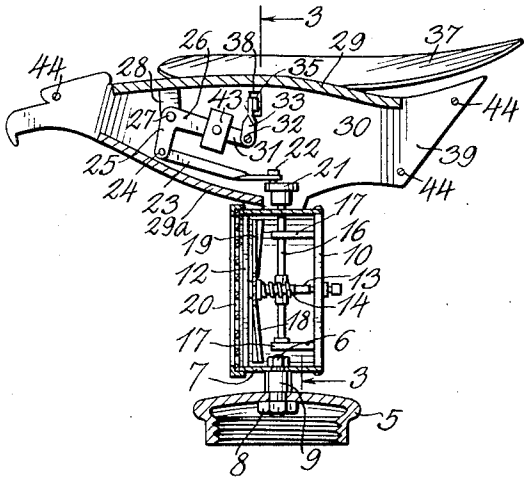


Fig. 2.

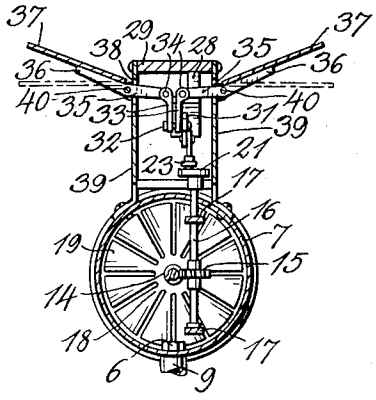


Fig. 3.

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ORNAMENTAL DEVICE FOR RADIATOR CAPS

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2 Claims. (Cl. 46—40)

This invention relates to improvements in ornamental devices for caps of automobile radiators or similar vehicles, the object being to provide a conspicuous device of this character by reason of its movement and that shall at the same time be ornamental.

The specific device illustrated in the drawing has the design of a bird of the eagle type and the wings are pivotally connected with the body member on opposite sides and are operated by oscillatory movement from a fan mounted to be automatically actuated by the movement of the atmosphere through a cylindrical casing in which the fan is mounted when the automobile is in motion, the rapidity of the oscillation of the wings being controlled by the speed of the machine. The casing in which the fan is located is secured to the top of the radiator cap and in this casing is mounted a horizontally disposed worm spindle which actuates a worm wheel meshing therewith and mounted on a vertically disposed spindle whose upper extremity is eccentrically connected with one extremity of a link whose opposite extremity is connected with one arm of a bell crank lever, the opposite arm of said lever being connected by means of links with levers respectively secured to the wings of the bird structure whereby as the current of air rushes through the cylindrical casing during the movement of the machine, the fan is actuated to impart through the means of the mechanism just outlined an oscillatory up and down movement to the wings of the structure, said movement imitating a flying bird.

Having briefly outlined my invention, I will proceed to describe the same in detail, reference being made to the accompanying drawing in which is illustrated an embodiment thereof.

In this drawing:

Fig. 1 is a top or plan view of my improved device.

Fig. 2 is a vertical, longitudinal section taken on line 2—2, Fig. 1; and

Fig. 3 is a cross section taken on line 3—3, Fig. 2.

The same reference characters indicate the same parts in all the views.

Let the numeral 5 designate an ordinary radiator cap which is threaded to connect with the radiator in the usual manner. A bolt 6 connects a cylindrical member 7 to the radiator cap. The head of this bolt is located inside of the cylindrical casing, the lower extremity of the bolt being secured by a nut 8 engaging the lower surface of the top of the cap, a spacing sleeve 9 being interposed.

Vertically located within the cylindrical member 7 are two vertically disposed bars 10 and 12 in which is journaled a horizontal spindle 13 provided with a worm 14 meshing with a worm wheel 15 mounted on a vertically disposed spindle 16, the spindle 16 being journaled in lugs 17 offset from the bar 10 and horizontally disposed. To the forward portion of the spindle 13 and located beyond the worm is made fast a fan wheel 18 having blades 19 disposed within the cylindrical casing to rotate in response to the current of air passing through the casing when the automobile is in motion. Secured within the cylindrical casing forward of the fan and the bar 12 is a screen disk 20 to prevent the entrance of dirt and débris that might have a tendency to interfere with the proper working of the mechanism.

The upper portion of the spindle 16 extends through the top portion of the cylindrical casing 7 and to this protruding end is secured a disk 21 having a wrist pin 22 offset from the center of the disk in order to give an eccentric or crank movement to a link 23, one extremity of which is connected with the crank pin, while its opposite extremity is pivotally connected as shown at 24, with one arm 25 of a bell crank lever 26, which is fulcrumed at 27 on a lug 28 secured to the top portion 29 of a hollow member 30 having the general shape of the body of a bird so that the bell crank lever is located and concealed within this hollow member, the lug 28 on which said lever is fulcrumed extending downwardly from the lower surface of the top of said body member. The other arm 31 of this bell crank lever is pivotally connected as shown at 32 with two links 33 which extend upwardly from the lever arm and are respectively pivotally connected as shown at 34 with the inner arms of levers 35 whose outer arms 36 are respectively secured to the under surface of the wings 37. The levers 35 pass through openings 38 formed in the upper portions of the side members 39 of the bird shaped body 30, the said openings being of such size as to permit the necessary oscillating movement of the lever arms which pass therethrough. These levers 35 are fulcrumed as shown at 40 on horizontal pins 41 which are mounted in lugs 42 projecting outwardly from the side members 39 of the body.

Upon the arm 31 of the bell crank lever is mounted a weight 43 which performs a counterpoise function. This balancing effect of the weight on the wings facilitates the operation of the structure.

It will be noted from reference to the drawing that the body member 30 is composed of sheet metal parts, the sides of which are connected by suitable fastening devices 44, which are brought together at both front and rear, but spaced between these contact portions to form the hollow structure in which the bell crank lever and its connecting parts are located, the chamber of this structure being closed at the top and bottom by the parts 29 and 29a.

From the foregoing description the construc-

tion and operation of my improved device will be readily understood. When the automobile is parked or motionless, the oscillatory wings 37, as well as all the other mechanism are in the position of rest, but as soon as the machine starts, there is a circulation of air through the cylindrical casing 7 which imparts movement to the fan, whose worm gear connects with the bell crank lever and other mechanism heretofore described, will impart the regular oscillation to the wings of the bird body thus imitating the movement of the wings of a bird when in flight.

Each wing is preferably provided with two arms 45 pivotally connected to the rod 41 and located on opposite sides of the lever 35. These arms give proper stability to the connection of the wings with the body of the structure. Further, the screen 20 is preferably a fairly coarse perforated plate so as to permit relative free passage of the air through the cylindrical casing when the automobile is in motion.

Having described the invention what I claim is:

1. In a radiator cap ornament having a hollow casing, a horizontal worm spindle journaled in said casing, a fan wheel mounted on said spindle, a vertically disposed spindle journaled in the casing and having a worm wheel meshing with the worm of the horizontal spindle, and a body member mounted on the casing and provided on opposite sides with hingedly connected wings, an operative connection between the upper extremity of the worm wheel spindle and the said wings to cause the latter to operate when the fan wheel is in motion, said last named connection including a bell crank lever, a crank connection between said lever and the vertical spindle, levers carried by the respective wings and a link connection between the bell crank lever and said wing levers.

2. In an animated radiator ornament having a casing provided with a wind motor and a hollow body member supported on the casing and provided with two movable wings, means for transmiting motion from the wind motor to the wings comprising a vertical drive shaft whose upper end terminates within the body member, a crank pin on the upper end of the shaft, a bell crank located within the body member and movable about a transverse pivot, a connecting rod extending from the crank pin to one end of the bell crank and means connected with the free end of the other arm of the bell crank for operating the wings.

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