

[54] **DEVICE FOR SCATTERING LIGHT OBJECTS**

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[51] Int. Cl. ....**A63h 33/26**

[58] Field of Search.....**46/10**

[56] **References Cited**

**UNITED STATES PATENTS**

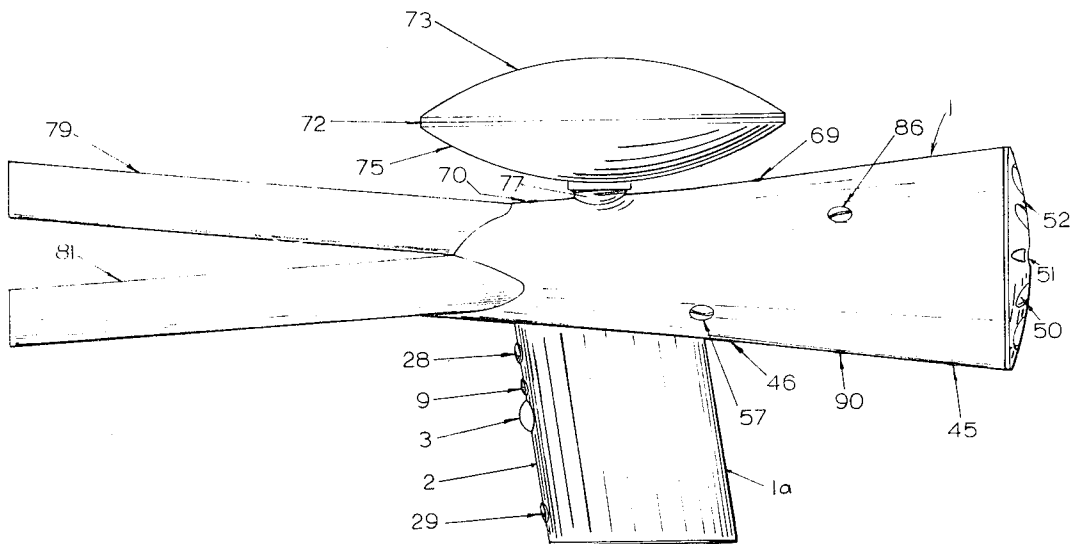
3,225,486	12/1965	Levy.....	46/10
3,435,554	4/1969	Philips.....	46/10

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[57] **ABSTRACT**

A device for scattering light objects such as confetti, in which the objects fall through an aperture from a container into a housing and are blown out through one or more forwardly projecting barrels by a fan located behind a screen located rearwardly of the aperture.

**10 Claims, 10 Drawing Figures**



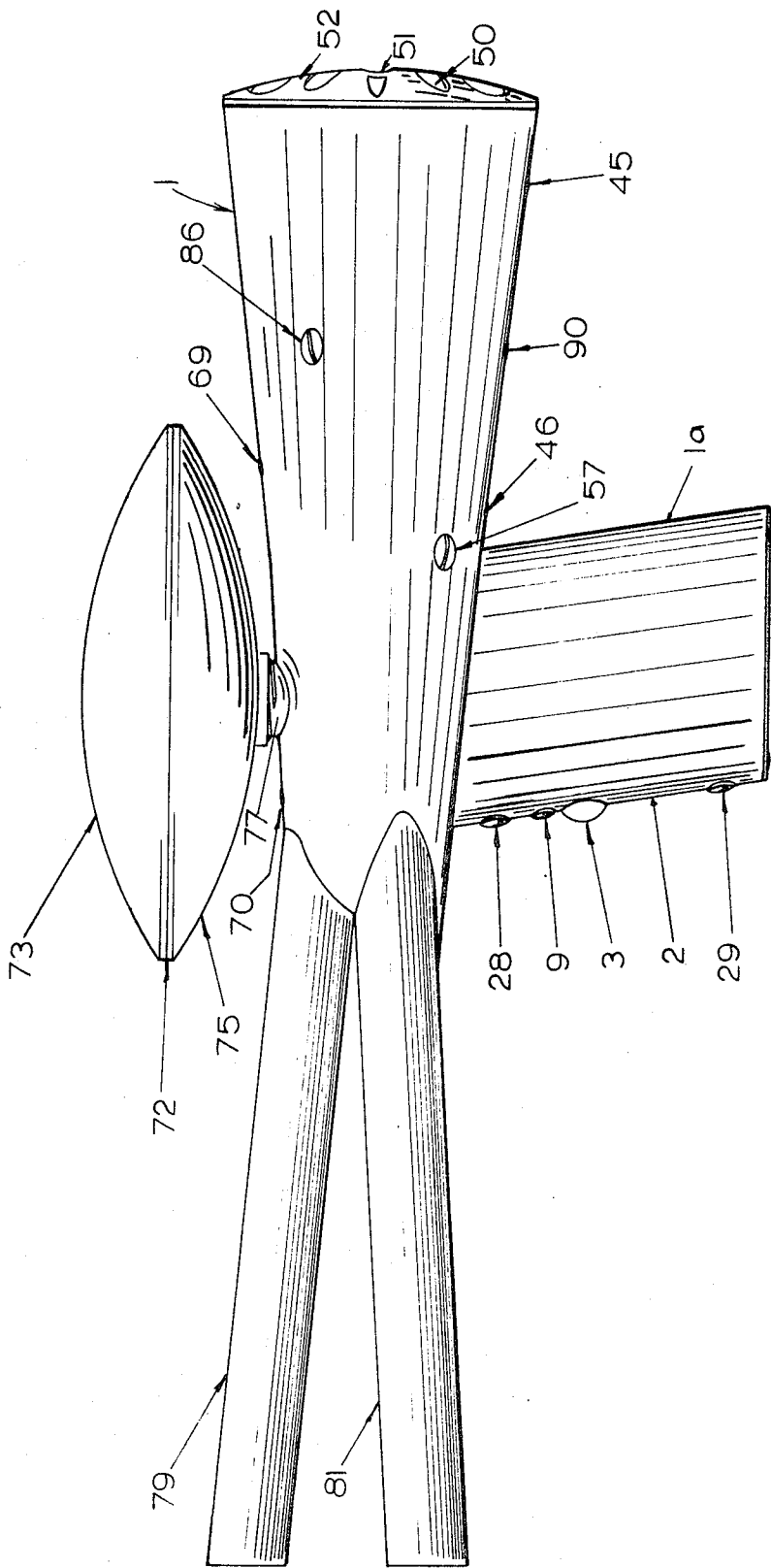


FIGURE 1

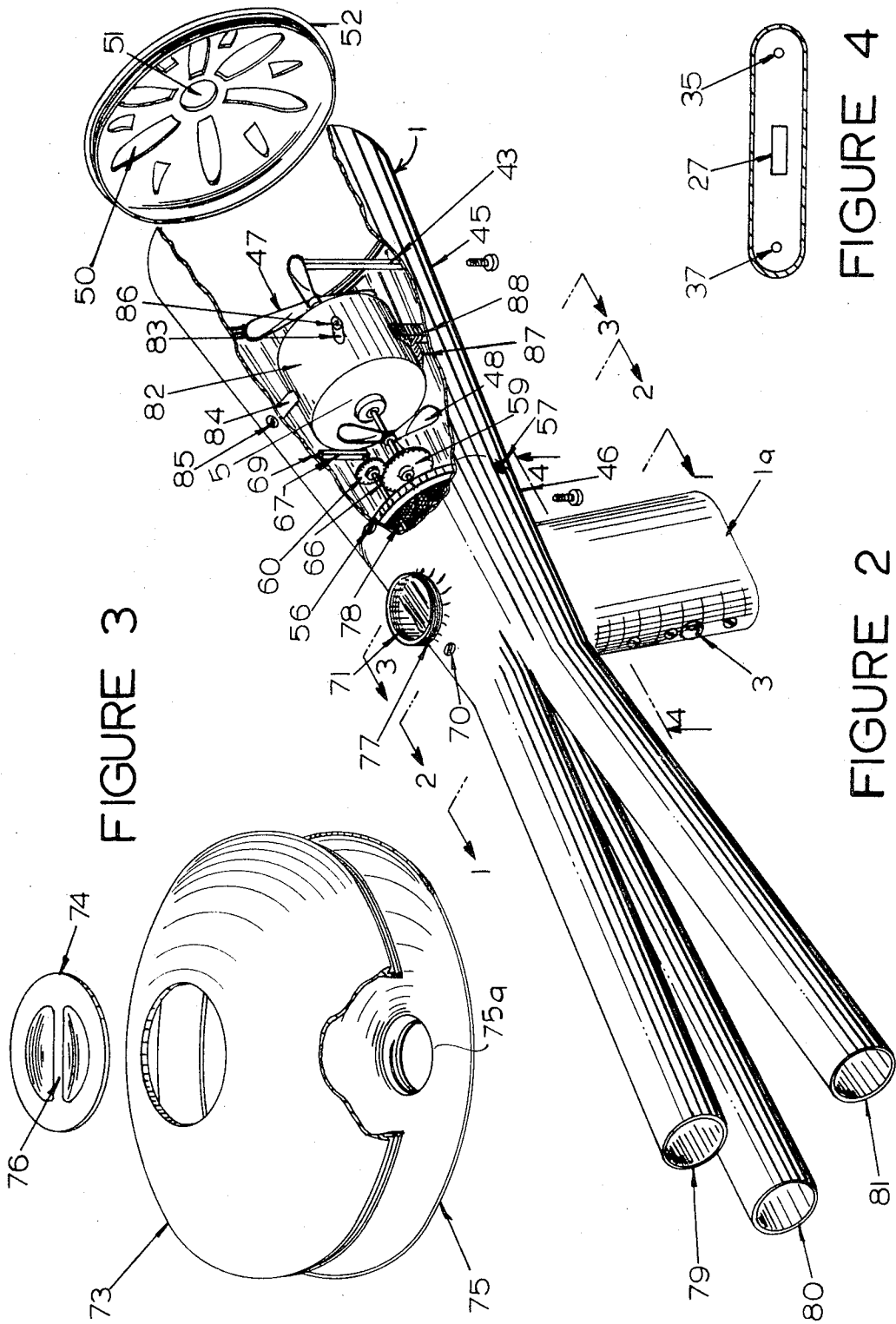


FIGURE 3

FIGURE 2

FIGURE 4

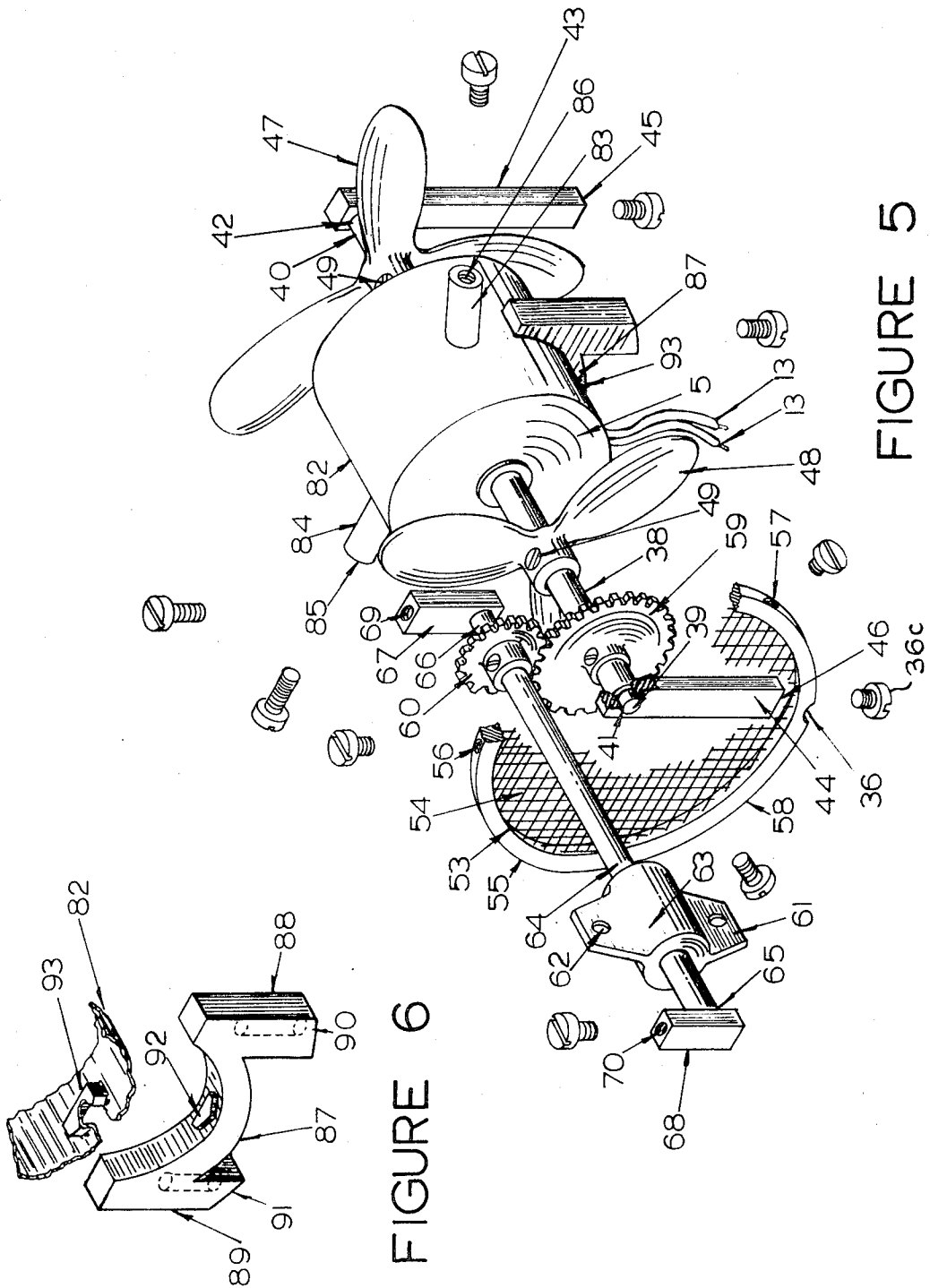


FIGURE 5

FIGURE 6



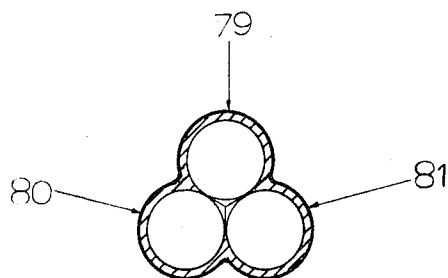


FIGURE 8

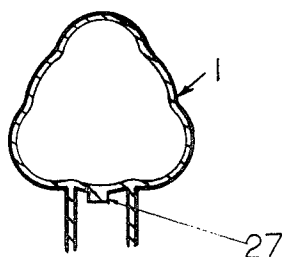


FIGURE 9

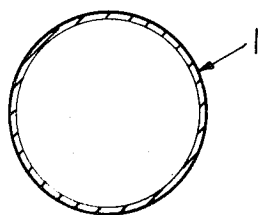


FIGURE 10

## DEVICE FOR SCATTERING LIGHT OBJECTS

This invention relates to a device for scattering small light objects such as confetti.

Confetti and similar material is usually scattered by hand although devices have been conceived from time to time to facilitate that method. It is an object of the present invention to provide an improved device for scattering such material.

An example embodiment of the invention is shown in the accompanying drawings, in which:

FIG. 1 is a side elevation of a scatterer;

FIG. 2 is a perspective view, partly broken away, of the main body portion of the device of FIG. 1;

FIG. 3 is an exploded perspective view of the container of the device of FIG. 1;

FIG. 4 is a cross-sectional view taken along line 4—4 of FIG. 2;

FIG. 5 is a perspective view of the internal mechanism of the device of FIG. 1;

FIG. 6 is a perspective view of the motor mount of FIG. 5;

FIG. 7 is an exploded perspective view of the handle of the device of FIG. 1;

FIG. 8 is a cross-sectional view, taken along line 1—1 of FIG. 2, of the housing of the device;

FIG. 9 is a cross-sectional view, taken along line 2—2 of FIG. 2, of the housing of the device; and

FIG. 10 is a cross-sectional view taken along line 3—3 of FIG. 2, of the housing of the device.

As seen particularly in FIGS. 1—3, the embodiment shown in the drawings consists of a housing 1 of frusto-conical shape having three nozzles or barrels 79, 80 and 81 projecting from the smaller, forward end of the housing and diverging at narrow angles from the axis of the housing.

A direct current motor 15 is mounted in housing 1 towards the larger rearward end of the housing which carries a cap or cover 52 with apertures 50 and 51. Motor 5 is fixed in housing 1 by lugs 83 and 84 with threaded holes 85 and 86 to receive screws, passing through the housing wall and the motor rests on a saddle 87 having legs 88, 89 with threaded holes 90, 91 receiving screws passing through the housing wall. A tooth 92 on saddle 87 is received in a recess 93 in wall 82 of motor 5. A pair of fans 47 and 48 are fixed by screws 49 on drive shaft 38 of motor 5 one fan at each end of the motor. The ends 39 and 40 of drive shaft 38 are journaled in sockets 41 and 42 in a pair of mounts or brackets 43 and 44 fixed in housing 1 by screws engageable with threaded holes 45 and 46 in mounts 43 and 44 respectively.

A grill or screen 53 is fixed in housing 1 between one fan 48 of motor 5 and the base of barrels 79, 80 and 81. Screen 53 consists of an open mesh grid 54 mounted on a circular flange 55 which is fixed to housing 1 by screws engaging threaded holes 56, 57, 58 in the frame.

An aperture or opening 71 is located in the wall of housing 1 between screen 53 and the base of barrels 79, 80 and 81 and opens downwardly into an area 78 in front of screen 53. Aperture 71 has an outwardly projecting, threaded flange 77. A tank or container 72 is mounted on housing 1 and consists of a pair of opposed, shallow, dished members 73 and 75 forming a chamber, lower member 75 having an internally threaded opening 75a engageable with flange 77 on the

housing, and upper member 75 having a removable cover 74 with a gripping fin 76.

Within housing 1 a gear 59 fixed to drive shaft 38 of motor 5 meshes with a gear 60 which is fixed on a shaft 64 journaled at each end 65, 66 in a pair of brackets 67, 68 fixed to the housing by screws in threaded holes 69, 70 in the brackets. Shaft 64 passes through screen 53 and carries fixed to that shaft on the side of the screen opposite gear 60, a rotor 63 having a pair of fins 61 each with an aperture 62. Rotor 63 is located to pass the free outer edge of each fin 61 across opening 71 of housing 1.

A handle 1a is fixed to housing 1 diametrically opposite opening 71 of the housing. As seen in FIG. 7, handle 1a consists of a contoured shell 2 carrying a push-button ball 3 projecting outwardly through an aperture 4 in the shell. Ball 3 bears against a leaf spring 7 fixed at one end to a block 8 which is fixed through an aperture 9 by a screw 10 to shell 2 and at the other end to a contact 6 spaced from a pole 16 of an electrical battery 15 located in the shell. The other pole 14 of battery 15 bears against a contact 17 fixed on shell 2. Leads 13 from motor 5 pass through holes 36 (see FIG. 5), 35 and 37 of housing 1 (see FIG. 4) and are connected to terminals 12 and 19 in holes 11 and 18 of contacts 6 and 17 respectively. Grooves 20 and 22 in ends 21 and 23 of battery 15 receive projections 27 and 24 on housing 1 and on base 30 of handle 1a respectively.

Battery 15 is preferably constructed to have flattened side walls, 15a and 15b, pole 14 projecting from one rounded edge 15c of the battery adjacent end 21 and pole 16 projecting from the other rounded edge 15d of the battery adjacent end 23. Base 30 is removably fixed on handle 1a by screws passing through holes 31 and 32 in the base and engaging threaded holes 33 and 34 in shell 2. Battery 15 is further secured in shell 2 by a bracket 25 fixed to the shell by screws 10 engaging threaded holes 28 and 29 in the bracket which also has an aperture 26 to pass pole 16 of the battery.

In the operation of the device small pieces of light material such as confetti-like discs of paper are charged into container 72 after temporarily removing cover 74. Grasping handle 1a and aiming barrels 79, 80, 81, ball 3 is pressed to move contact 6 against pole 16 to complete the circuit between battery 15 and motor 5, causing fans 47 and 48 to rotate drawing air through apertured cover 52 and blowing the air through screen 53. Gears 59 and 60 cause rotor 63 to rotate also, agitating the discs in opening 71 and scattering them in front of screen 53. The air from fans 47 and 48 passing through screen 53 blows the discs out of the device through barrels 79, 80, 81. Screen 53 prevents any of the discs from coming into contact with gears 59, 60 or fans 47, 48 as they drop from opening 71.

We claim:

1. A device for scattering small light objects of paper or the like comprising:

a housing having a forward portion and a rearward portion, the housing being perforated in the rearward portion thereof;

a fan mounted in the housing, the fan being constructed and arranged to direct air forwardly therein;

a screen fixed in the housing forwardly of the fan;

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at least one barrel projecting from the housing forwardly of the screen;

a container mounted on the housing and connected downwardly with an aperture to open into the housing between the screen and the barrel; and motor means mounted in the housing and connected with the fan for rotation thereof.

2. A device as claimed in claim 1 including rotatable means mounted in the housing below the aperture from the container, and means to connect the rotatable means with the motor means through the screen.

3. A device as claimed in claim 2 in which the rotatable means comprises a motor having a pair of diametrically opposed fins movable through the area of the aperture from the container.

4. A device as claimed in claim 1 in which the motor means comprises an electric motor fixed to the housing rearwardly of the fan, a handle fixed on the housing, battery means mounted in the handle and connected electrically with the electric motor, and switch means mounted in the handle for connecting and disconnecting the battery means and the electric motor.

5. A device as claimed in claim 4 including a further fan mounted in the housing rearwardly of the motor and connected therewith, the further fan being con-

structed and arranged to direct air forwardly in the housing.

6. A device as claimed in claim 1 in which the housing is frusto-conical and the barrel projects from the smaller end thereof.

7. A device as claimed in claim 1 in which the container comprises a pair of shallow, dished members threaded together in opposed upper and lower relationship, an aperture centrally located in each member and a removable cover on the aperture of the upper member.

8. A device as claimed in claim 4 in which the battery means comprises a battery body having flat upper and lower end walls, a pair of opposed, flattened side walls and a pair of opposed, rounded edges.

9. A device as claimed in claim 8 in which the battery has a pair of poles, one pole projecting from the upper portion of one of the rounded edges of the battery body and the other pole projecting from the lower portion of the other rounded edge of the battery body.

10. A device as claimed in claim 8 in which each end of the battery carries a groove, and the housing and handle each carries a projection receivable in said grooves.

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