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M. MAKOWSKI

2,489,149

ELECTRIFIED MINIATURE MUSIC BOX

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Fig. 1

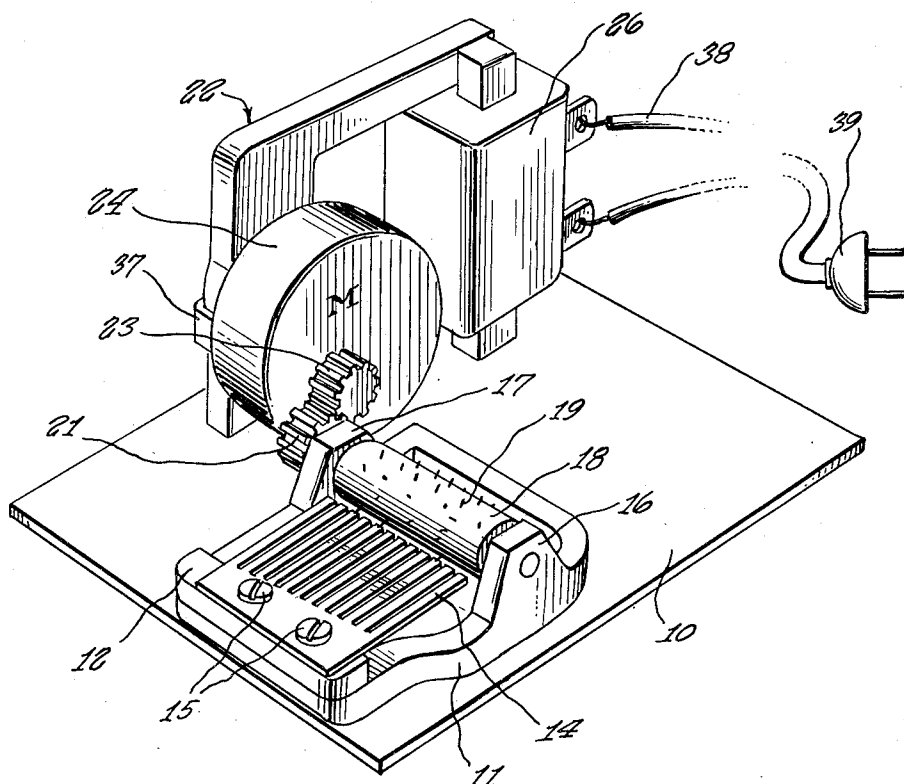
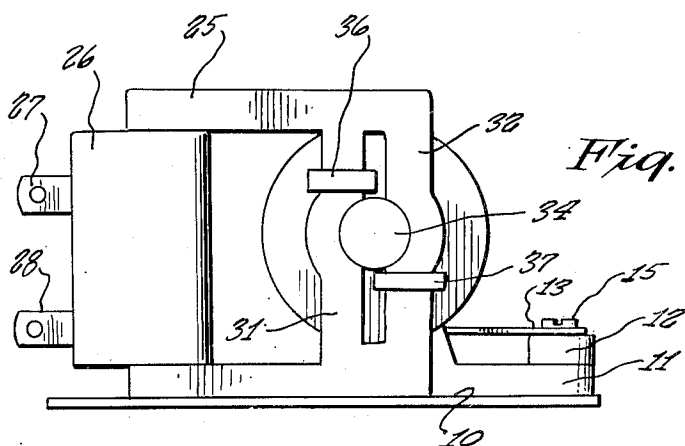


Fig. 2



INVENTOR.

MICHAEL MAKOWSKI

BY

Carl Miller

ATTORNEY

UNITED STATES PATENT OFFICE

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ELECTRIFIED MINIATURE MUSIC BOX

Michael Makowski, Passaic, N. J.

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1 Claim. (Cl. 84-95)

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This invention relates to an electrified miniature music box.

It is an object of the present invention to provide a music box which is electrically operated so as to have continuous operation without the need for manual effort to reset the device and wherein the tone of the music will be the same at all times and will not lag and wherein the operation of the music box can be effected by the mere insertion of a plug into a wall receptacle.

Other objects of the present invention are to provide an electrified miniature music box which is of rigid construction, compact, inexpensive to manufacture and efficient in operation.

For other objects and for a better understanding of the invention, reference may be had to the following detailed description taken in connection with the accompanying drawing, in which

Fig. 1 is a perspective view of the music box embodying the features of the present invention.

Fig. 2 is a side elevational view of the music box.

Referring now to the figures, 10 represents a base or chassis on which the parts are mounted. A frame 11 contains a raised portion 12 from which is extended a plate 13 having musical tuning projections or fingers 14 extending therefrom. This plate is secured in place by screws 15.

Extending upwardly from the frame are bearing portions 16 and 17 for supporting a roll 18 having trip points 19 adapted to engage with the ends of the tuning projections 14. On this roll and extending outwardly from the bearing portion 17 is a gear 21 adapted to be driven by an electric motor 22 also mounted on the base 10. This gear 21 meshes with a driving gear 23 extending from the motor. This motor includes a gear reduction housing 24 whereby the output speed of the gear 23 will be less than the speed of the motor.

This motor further includes an armature 25 on which is a field coil 26 having terminals 27 and 28 extending therefrom. This armature has parallel portions 31 and 32 adapted to receive a part of the motor rotor as indicated at 34. On the parallel portions 31 and 32 of the armature are shading coils 36 and 37. Accordingly, there has been provided a shading pole motor.

The housing 24 is preferably liquid proof and the gears therein are immersed in the liquid so that they may be prevented from making interfering noises which may harm the musical effect of the box.

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Lead wires 38 extend outwardly from the terminals 27 and may have a plug 39 thereon for engagement with a wall receptacle.

As the field winding 26 is energized, the rotor 34 will be rotated and through gears 23 and 21, the roll 18 will be rotated to effect engagement of the pins 19 with the fingers 14. The housing 24 is slide fitted into the armature 25. The motor 22 is supported through its armature on the base 10.

While various changes may be made in the detail construction, it shall be understood that such changes shall be within the spirit and scope of the present invention as defined by the appended claim.

Having thus set forth and disclosed the nature of my invention, what is claimed is:

An electrified miniature music box having a base, a frame with musical projections thereon and a pin roll engageable with the projections, an electric motor mounted on the base, a reduction gear housing secured to the motor and having an output gear extending therefrom, said roll having a gear meshing with the output gear from the reduction gear housing, said electric motor having lead wires extending from the same for the connection of the motor with an electrical source, said electric motor including an armature with parallel portions, said parallel portions of the armature having opposing recesses, a rotor armature extending from the reduction gear housing and between the opposing recesses of the parallel portions of the armature, and pole brackets respectively extending from the respective parallel portions and connected with the reduction gear housing whereby to support the reduction gear upon the electric motor, one pole bracket serving as a shading pole upon one parallel portion above the rotor armature and the other pole bracket serving as a shading pole upon the other parallel portion and disposed thereon below the rotor armature.

MICHAEL MAKOWSKI.

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