

Feb. 23, 1926.

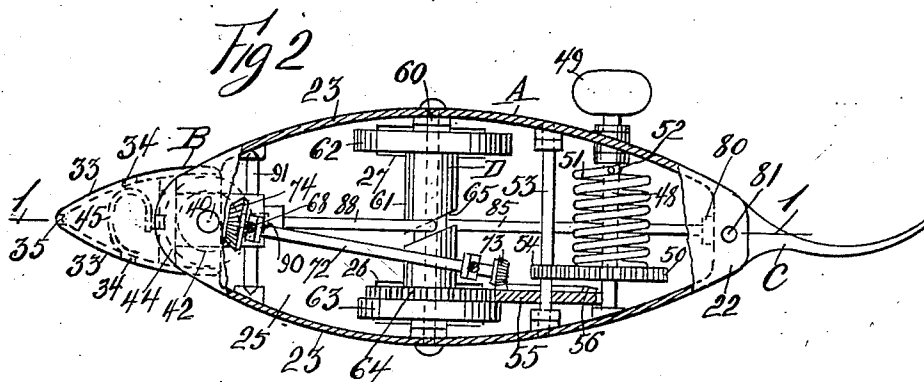
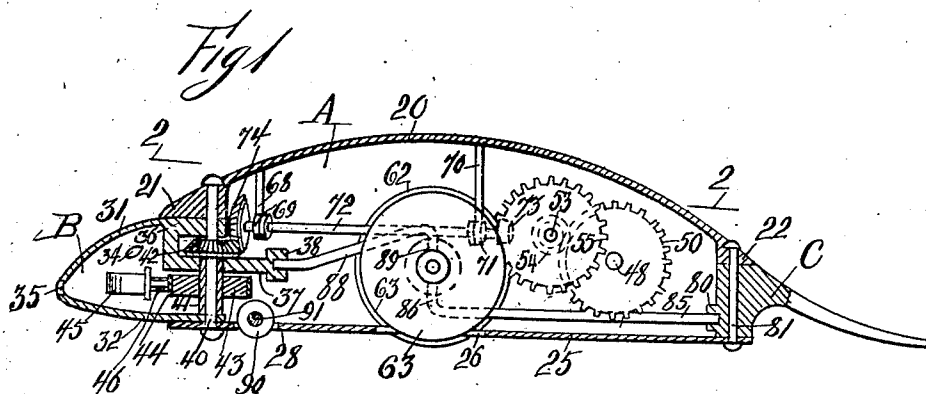
J. HOLTZMAN

1,574,035

TOY

Filed April 3, 1922

2 Sheets-Sheet 1



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Fig. 3

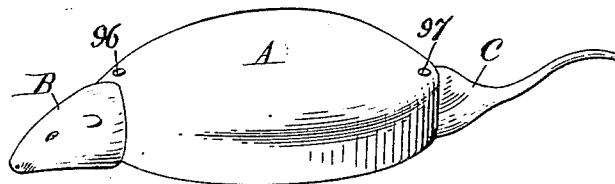


Fig. 4

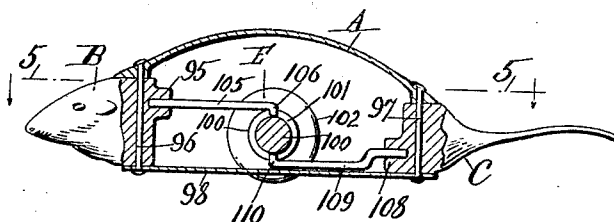
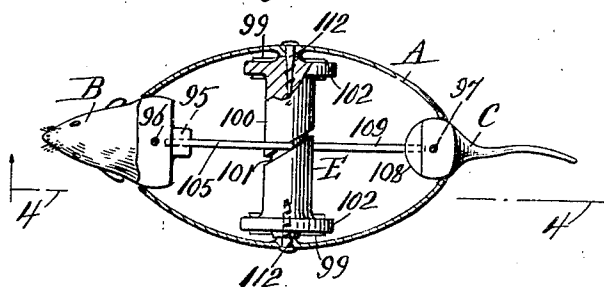


Fig. 5



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UNITED STATES PATENT OFFICE.

JOHN HOLTZMAN, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO MAX E. BERNHARDT, OF NEW YORK, N. Y.

TOY.

Application filed April 3, 1922. Serial No. 549,321.

To all whom it may concern:

Be it known that I, JOHN HOLTZMAN, a citizen of the United States, and resident of the borough of Manhattan, city of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in a Toy, of which the following is a specification.

This invention relates to a toy. Its object is the production of a toy that can be rolled or moved, and at the same time will rock a pair of its parts. A second object of the invention is the production of a toy that will move in a circular path. A third object of the invention is the production of a toy that will spit fire during its movements. A fourth object of the invention is the production of a toy having the appearance of an animal, with a head and a tail that will swing while it is moving, and that will spit fire from its mouth and eyes while moving. A fifth object of the invention is the production of a toy that will move on the ground through the energy of a motor, preferably a spring motor. Other objects will be evident from the following description.

In the accompanying drawings, Fig. 1 represents in part a side elevation and a section on the line 1, 1 of Fig. 2 of an exemplification of the toy; Fig. 2 shows in part a top plan view and a section of Fig. 1 on the line 2, 2; Fig. 3 indicates a side elevation of a modification of the toy; Fig. 4 shows a section of Fig. 5 on the line 4, 4 and Fig. 5 is a part top plan view and section of Fig. 4 on the line 5, 5.

Referring to Figs. 1 and 2, the toy is represented as a mouse with the body portion A, which is preferably a shell, and to which is pivoted the head B and the tail C.

The body portion A comprises the back 20 with the enlarged front end 21, the enlarged back end 22 and the side walls 23. A bottom plate 25 is indicated with the openings 26, 27 and 28.

The head B comprises the top wall 31, the bottom wall 32 and the side walls 33, with the eye openings 34. An opening 35 at the peak of the head B constitutes the mouth opening of the mouse. The top wall 31 has

formed therewith the enlarged portion 36 and the leg 37, from which latter extends the boss 38. A pivot 40 connects the enlarged front end 21 and the bottom plate 25. A sleeve 41 is journaled on the pivot 40. The enlarged portion 36 is pivoted on the pivot 40. The leg 38 is pivoted on the sleeve 41.

A bevel gear 42 encircles the pivot 40 and is fastened to the upper end of the sleeve 41.

A disc 43 with a circumferential cover 44 of abrasive material is fastened to the sleeve 41. A spring 45 has one end fastened to one of the walls 33 and to its other is fastened a bar 46 of sparking material, which may be a pyrophoric element. The end of the bar 46 bears on the cover 44.

A spring motor is shown in the body of the toy and comprises the shaft 48 which is pivoted in the side walls 23. An operating handle 49 is fastened to the shaft 48 outside of the body of the toy. A spur gear 50 in the body of the toy is journaled on the shaft 48. A helical spring 51 has one end fastened to the shaft 48, and its other end is fastened to the spur gear 50. A shaft 53 is journaled in the walls 23 and has fastened thereto the pinion 54, which meshes with the spur gear 50. A spur gear 55 with the bevel teeth 56 on one of its side faces is fastened to the shaft 53. A shaft 60 is supported in the walls 23 and has journaled thereon a spool designated in its entirety by the letter D, comprising the barrel 61 and the rollers 62 and 63. The latter extend respectively through the openings 27 and 26. The roller 62 is preferably of larger diameter than the roller 63. A spur gear 64 is fastened to the roller 63 and meshes with the spur gear 55. A groove cam 65 is formed in the barrel 61.

A hanger 68 with the journal bearing 69, and a hanger 70 with the journal bearing 71, extend from the back 20. A shaft 72 is journaled in the journal bearings 69 and 71. A bevel pinion 73 is fastened to one end of the shaft 72 and meshes with the bevel teeth 56. A bevel gear 74 is fastened to the other end of the shaft 72 and meshes with the bevel gear 42.

The tail C has formed therewith the boss 80 and is hinged on the pivot 81, that ex-

tends through the enlarged back end 22 of the back 20, and through the plate 25. An arm 85 is indicated with the leg 86 at right angles thereto. One end of the arm 85 is fastened in the boss 80 and the leg 86 engages the groove cam 65, and enters the same from below. An arm 88 is indicated with the leg 89 at right angles thereto. One end of the arm 88 is fastened to the boss 38 and the leg 89 engages the groove cam 65 at the upper side of the latter.

A roller 90 is fastened to a pivot 91, and the ends of the latter are pivoted in the side walls 23.

In the modification of the invention indicated in Figs. 3, 4 and 5, the toy is again shown as a mouse with the body portion A, the head B and the tail C.

The head B has formed therewith the boss 95 and is pivoted to the body portion A by means of the pivot 96. The tail C is pivoted to the body portion A by means of the pivot 97. A bottom plate 98 has formed therein openings 99. A spool E is shown with the barrel 100 having the groove cam 101. Rollers 102 are formed with the barrel 100 and extend through the openings 99 below the plate 98. An arm 105 is shown with the leg 106 at right angles thereto, which extend into the groove cam 101 at the upper portion thereof. The other end of the arm 105 is fastened to the boss 95. The tail C has formed therewith the boss 108. An arm 109 has one end fastened to the boss 108 and at its other end is formed a leg 110 at right angles thereto, which extends into the cam groove 101, at the bottom side of the barrel 100. Screw pivots 112 extend from the ends of the spool and are journaled in the side walls of the body A.

To use the toy and referring to Figs. 1 and 2, the operator winds up the spring 51, by means of the handle 49, places the toy on the floor and then releases said handle. The spring motor through the spur gear 55 rotates the spur gear 64. By this means the rollers 62 and 63 are turned and the toy will travel on the floor. The roller 62 being of larger diameter than the roller 63, the toy will travel in a circular path, and return to its starting point.

While the spur gear 55 is turning the bevel teeth 56 will turn the bevel pinion 73, and thereby the shaft 72 is turned. The bevel gear 74 turns with the shaft 72 and thereby rotation is transmitted to the bevel gear 42. The sleeve 41 turns with the bevel gear 42, which in turn rotates the disc 43. The bar 46 bearing on the cover 44 sparks will be generated, which escape through the eye openings 34 and the mouth opening 35.

While the spool D is turning, the engagement of the leg 89 with the groove cam 65 will cause the leg 37 to oscillate on the sleeve 41, and the head B will be rocked or swung.

At the same time the coaction of leg 86 with said groove cam 65 will cause the tail C to swing.

Referring to Figs. 3 to 5 the toy is placed on the ground and pushed to roll the spool E, which will cause the groove cam 101 to swing the leg 106 of the arm 105 and thereby rock or swing the head B. The coaction of the leg 110 with said groove cam 101 will cause the tail C to swing.

The present exemplifications of the invention are to be taken as illustrative only and not limitative, as various modifications may be made therein.

Having described my invention what I desire to secure by Letters Patent and claim is:

1. In a toy the combination of a body portion, a motor in the body portion, a head with openings pivoted to the body portion, a tail pivoted to the body portion, a spool having a cam groove and a pair of rollers journaled in the body portion, said rollers extending out of said body portion, connections between the motor and said spool to turn the said rollers and thereby move the toy, an element extending from the head coacting with said cam groove to move said head, an element extending from the tail coacting with said cam groove to move said tail, a disc with an abrasive material journaled in the toy, a sparking material bearing against said material and means interposed between the motor and said disc to turn the latter and thereby generate sparks from the sparking material, said sparks being discharged through the openings in the head.

2. In a toy the combination of a body portion, a motor in the body portion, a head with openings pivoted to the body portion, a tail pivoted to the body portion, a spool comprising a barrel and a pair of rollers journaled in the body portion, said barrel having a cam formed therewith and said rollers extending out of said body portion, connections between the motor and said spool to turn the latter and thereby move the toy, an arm with one end fastened to said head and its other end contacting with said cam, an arm with one end fastened to said tail and the other end contacting with said cam, a disc with abrasive material journaled in the toy, means to turn said disc with said motor and a sparking element contacting with said abrasive material.

3. In a toy the combination of a body portion, a spring motor in the body portion, a pivot supported in the body portion, a head with openings pivoted on said pivot, a tail pivoted to the body portion, a spool comprising a barrel and a pair of rollers journaled in the body portion, said barrel having a cam formed therewith and said rollers extending out of said body portion, connections between the motor and said spool to

turn the latter and thereby move the toy, a sleeve journaled on the pivot, connections between the sleeve and said motor to turn the former, a disc with an abrasive material
5 fastened to the sleeve, a sparking material contacting with said material, means interposed between said cam and said head to swing the latter with the turning of the

spool and means interposed between said cam and said tail to swing the latter with the turning of the spool.

Signed at the borough of Manhattan, city of New York, in the county of New York and State of New York, this 17th day of March, A. D. 1922.

JOHN HOLTZMAN.