June 16, 1953 K. K. McENTYRE ET AL 2,641,867

MECHANICAL FIDDLER

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Fig. 1.

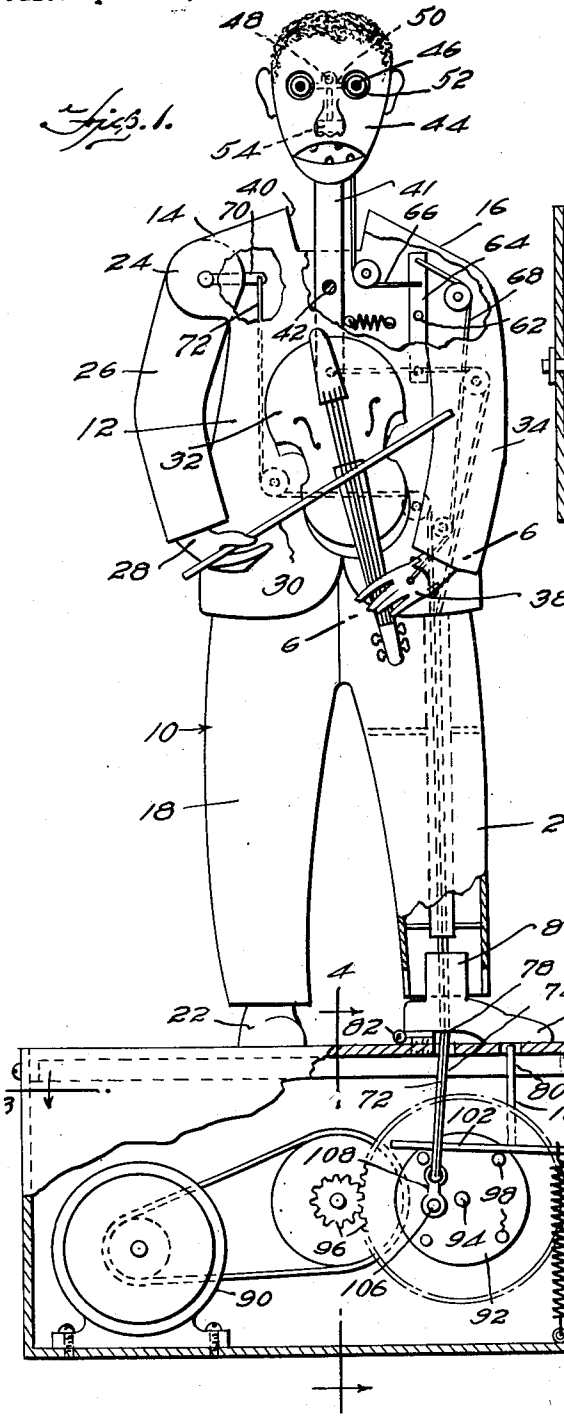


Fig. 4.

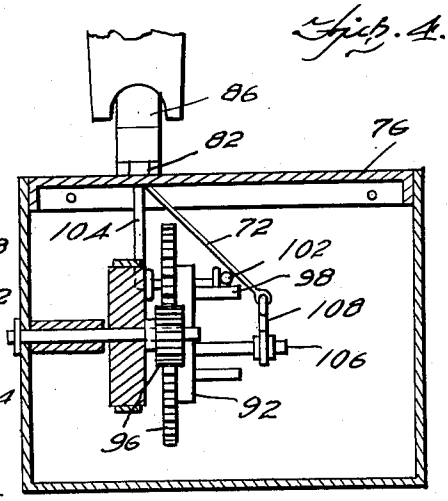


Fig. 6.

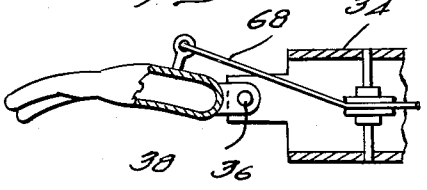
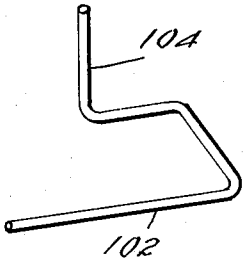


Fig. 7.



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MECHANICAL FIDDLER

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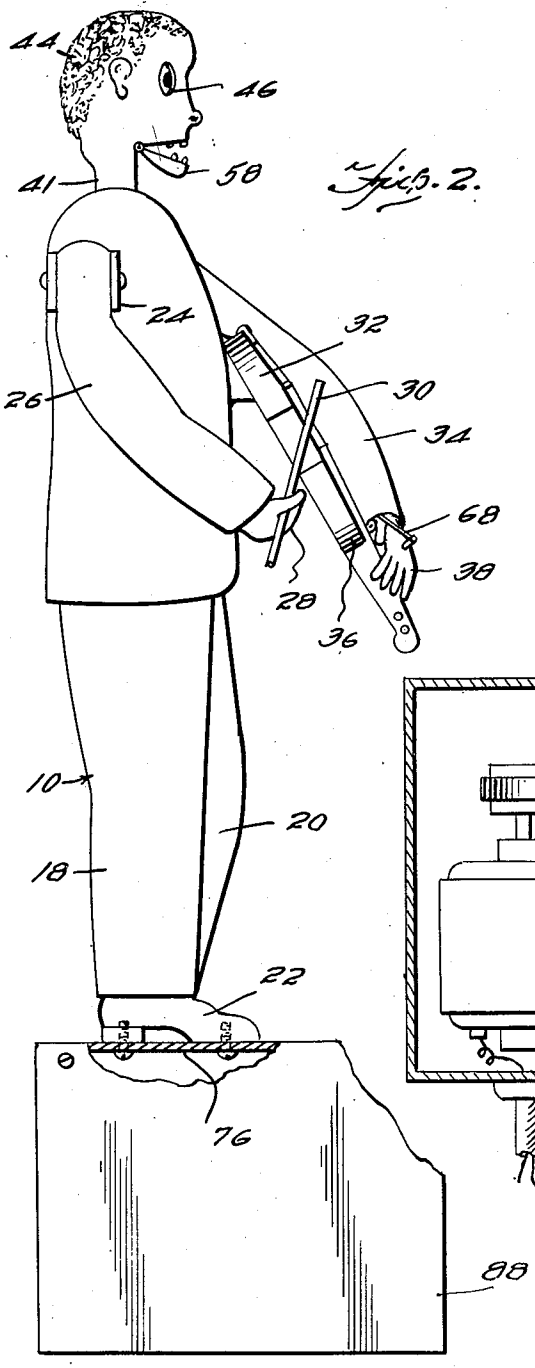
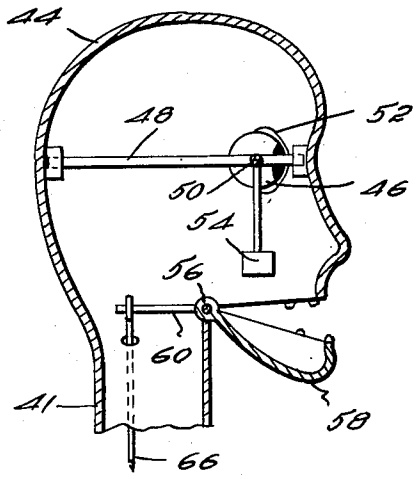


Fig. 2.

Fig. 5.



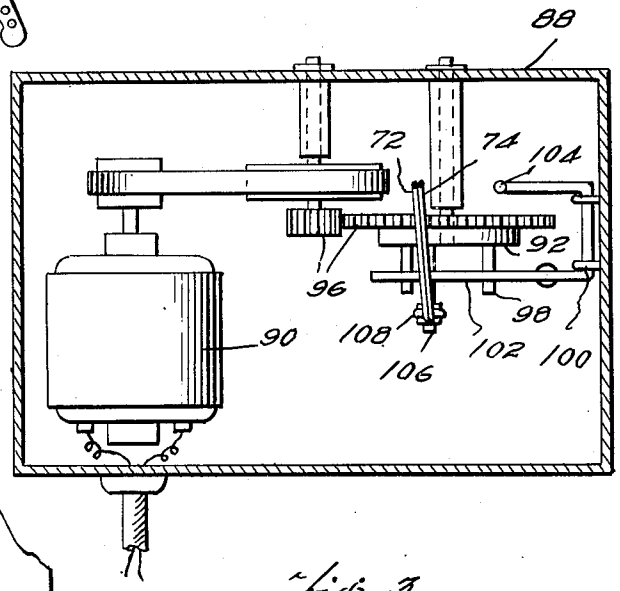


Fig. 3.

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MECHANICAL FIDDLER

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4 Claims. (Cl. 46—144)

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This invention relates to an animated figure and more particularly to a figure simulating a fiddler playing a fiddle and going through various motions such as are indulged in by persons playing a fiddle.

The primary object of the invention is to afford entertainment and amusement, and produce an attraction such as will appeal to the general public and cause it to be attracted thereby.

Another object is to attract the attention of passersby to advertisements and the like, in order to promote the sale of wares.

A more specific object is to simulate a figure going through the motions of playing a fiddle and singing, as well as moving his head and eyes as well as one of his feet in rhythmic timed relation.

The above and other objects may be attained by employing this invention which embodies among its features a hollow standard simulating a human body having legs and shoulders, an upright lever pivoted within the standard between the shoulders to rock about a horizontal axis, a hollow figure on the upper end of said lever simulating a human head, said hollow figure having spaced openings therein simulating eye sockets, a rock arm pivoted within a hollow figure between the openings, a pendulum carried by the rock arm to hold said arm in a substantially horizontal position, artificial eyes mounted on the rock arm and visible through the openings in the hollow figure and means connected to the lever and extending through said body for rocking said lever and moving the hollow figure whereby the artificial eyes will move behind the spaced openings.

Other features includes a member pivoted to the hollow figure adjacent its lower end and simulating a humer lower jaw, an arm on said pivoted member extending into the hollow figure and control means connected to the last named arm and extending into and through the hollow standard for actuating said arm and moving said member simultaneously with the upright lever.

Still other features include power driven means below the hollow standard and coupled with the various movable elements thereof for moving said elements in unison.

Further features include a fiddle mounted in front of the hollow standard, a solid member pivoted to the standard to move about a horizontal axis adjacent the upper end thereof, said solid member simulating an arm, a cupped hand carried by the solid member, a bow carried by the cupped hand and lying across the fiddle, and means connected with the solid member and extending into the hollow standard for actuating said solid member and causing the bow to move across the fiddle.

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Still other features include a movable hand lying across the neck of the fiddle, and means connected to the hand and extending through the hollow standard for moving said hand.

A further and important feature of the invention resides in a member pivoted beneath the hollow standard and representing a foot adjacent the lower end of one leg of said standard, and means actuated in unison with the moving of the other elements of the device for raising and lowering the toe of the foot in unison with the movements of the other parts of the animated figure.

In the drawings:

Figure 1 is a front view partly broken away, and illustrating a mechanical figure embodying the features of this invention, together with the actuating mechanism thereof;

Figure 2 is a side view of the figure illustrated in Figure 1;

Figure 3 is a horizontal sectional view taken substantially along the line 3—3 of Figure 1;

Figure 4 is a vertical sectional view taken substantially along the line 4—4 of Figure 1;

Figure 5 is a vertical sectional view through the head portion of the figure;

Figure 6 is a fragmentary enlarged sectional view taken substantially along the line 6—6 of Figure 1; and

Figure 7 is a perspective view of the lever and plunger by which the foot of the animated figure is actuated.

Referring to the drawings in detail an animated figure designated generally 10 comprises a hollow standard having a trunk portion 12 formed adjacent its upper end with shoulders 14 and 16, and at its lower end with a solid leg 18 and a hollow leg 20. The solid leg 18 of the body 10 terminates in a foot 22 while the lower end of the hollow leg 20 is wholly open as will be readily understood upon reference to Figure 1. Projecting laterally from the shoulder 14 of the hollow standard are spaced parallel ears 24 between which is pivotally supported the upper end of a solid member 26 which simulates a human arm and carries at its lower end a cupped hand 28 in which a fiddle bow 30 is held. Supported in front of the hollow standard is a fiddle 32 across which the bow 30 extends, so that as the arm 26 is moved about its pivot, the bow 30 will be moved across the fiddle.

Extending downwardly along the hollow standard 12 adjacent the side opposite the solid arm

member 26 is a hollow member 34 which simulates a human arm, and pivotally supported as at 36 adjacent the lower end of the arm 34 is an artificial hand 38, the fingers of which lie across the neck of the fiddle 32 as will be readily understood upon reference to Figure 1.

The upper end of the hollow standard 12 is provided midway between the shoulder portions 14 and 16 with a substantially V-shaped neck opening 40, and pivotally mounted as at 42 within the hollow standard immediately below the opening 40 is an upright neck post 41 the upper end of which carries a hollow figure 44 which simulates a human head. This figure is provided in its front wall with spaced openings 46 representing eye sockets, and pivotally supported as at 48 substantially midway between the openings 46 is a rock arm 50 which carries artificial eyes 52 which align with the openings 46. A pendulum 54 is carried by the rock arm 50, and is designed to hold said rock arm in a horizontal position irrespective of the movements of the hollow figure 44. It will thus be seen that as the upright neck post 41 moves about its pivot 42, the eyes 52 will appear to move in the eye sockets. Pivotally supported adjacent to the lower end of the hollow figure 44 as at 56 is a member 58 which simulates the lower human jaw of the hollow figure, and extending into the hollow figure from the member 58 is an arm 60 by which the member 58 is made to move about its pivot and thereby simulate the movements of the human jaw.

Pivotally supported as at 62 within the hollow standard 12 is an upright control lever 64, and coupled to said control lever adjacent its upper end is a control cable 66 which leads through the opening 40 in the hollow standard 12 and is connected to the jaw actuating arm 60 previously referred to. A similar control cable 68 is connected to the upright control lever 64 adjacent its upper end and leads downwardly through the hollow arm 34 and is connected to the artificial hand 38. It will thus be seen that as the control lever 64 rocks about its pivot 62, the jaw member 58, and the artificial movable hand 38 will be moved in unison.

Fixed to the pivot of the solid arm member 26, and extending into the hollow standard 12 is a lever arm 70, and coupled to said lever arm and extending downwardly through the hollow body and lower end of the hollow leg 20 is a control cable 72. A similar control cable 74 is coupled to the upright lever 41 adjacent the lower end thereof, and to the upright control lever 64 adjacent its lower end, and this cable 74 leads downwardly through the open end of the hollow leg 20 as will be readily understood upon reference to Figure 1. It will thus be seen that when pull is exerted on the cables 72 and 74 the various movable elements previously described will be moved in unison.

Mounted beneath the hollow standard 12 is a platform 76 which is provided with an opening 78 through which the cables 72 and 74 extend, and formed adjacent said opening 78 is a similar opening 80, the purpose of which will be more fully hereinafter explained. Pivotally supported as at 82 on the platform 76 is a hollow member 84 simulating a human foot. This hollow member is provided with an upwardly extending hollow cylindrical portion 86 which aligns axially with the opening 78 and through which the cables 72 and 74 are extended. The toe portion of the member 84 overlies the opening 80 in the platform 76, so that an object moving upwardly through the opening 80 will cause the member 84 to move about its pivot 82.

The platform 76 is supported at the upper end of the suitable housing 88, and mounted within said housing is a suitable power driven means or prime mover 90. A disk 92 is mounted within the housing 88 to rotate about a horizontal shaft 94 and is coupled through any suitable drive means such as a gear train 96 with the prime mover 90. Extending outwardly from one face of the disk 92 is an annular series of pins 98, and pivotally supported as at 100 to a wall of the housing 88 is a lever 102 which lies in the path of movement of the pins 98, so that as the disk is rotated, the lever 102 will be moved about its pivot 100. A plunger 104 is carried by the lever 100 and projects upwardly into and through the opening 80 in the platform 76, so that as the disk 92 rotates the plunger 104 will engage the underside of the toe portion of the member 84 and cause it to rock about its pivot 82. Projecting laterally from the disk 92 beyond the ends of the pins 98 is a crank pin 106, and carried by said crank pin is a coupling 108 to which the cables 72 and 74 are connected. A suitable retractile coil spring 110 is coupled to the lever 102, and to the housing 88 to hold said lever yieldingly against the pins 98.

In operation it will be evident that as the prime mover 90 is energized, rotary movement will be imparted through the gear train 96 to the disk 92. This will cause the pins 98 successively to engage the lever 102, thus causing it to move against the effort of the spring 110 and hence move the plunger 104 through the opening 80 and into engagement with the toe portion of the foot member 84. Simultaneously with the movement of the foot member, the crank pin 106 will exert pull on the link 108, thus causing the cables 72 and 74 to be moved and exert pull on their respective elements 70 and 64. Obviously as the cables exert pull on the members abovementioned, the solid member 26 will move against the effort of gravity, thus causing the fiddle bow 30 to move across the fiddle 32 and simulate the playing of the instrument. Also the hand 38 will be moved by the control cable 68 through the oscillation of the control lever 64, which in turn causes the lower jaw member 58 to move about its pivot 56 in unison with the movements of the hand 38. The movements of the cable 74 are of course transmitted also to the neck post 41 so that the hollow figure 44 which simulates the human head will move in an arc about the axis of the pivot 42, thus causing the eyes to appear to roll in unison with the movements of the other elements of the figure. In this way complete animation of the figure is obtained and the simulation of the human fiddler is procured.

While in the foregoing there has been shown and described a preferred embodiment of this invention it is to be understood that minor changes in the details of construction, combination and arrangement of parts may be resorted to without departing from the spirit and scope of the invention as claimed.

We claim:

1. In an animated figure including a hollow body having a neck opening, a hollow arm, a movable solid arm and a head; the animation transmitting mechanism which comprises a post disposed vertically in the body and extending upwardly through the neck opening, a pivot coupling between the post and the body below the neck opening and above the lower end of the post,

an elongate lever within the body and pivoted intermediate its ends for oscillatory motion, a hand pivotally coupled to the hollow arm, a power mechanism including a pull element, a pull cable operatively coupled between said element and the movable arm to actuate the latter, a pull cable operatively coupled between an end of said lever and said pivoted hand, and a pull cable connected at one end to said pull element and connected at its other end to the other end of the said lever and to the lower end of the post to oscillate said post and lever in unison.

2. The invention according to claim 1, wherein said head includes a pivoted jaw, and a pull cable operatively coupled between the jaw and said lever.

3. The invention according to claim 1, wherein said post and lever are positioned in adjacent approximately parallel relation with the pivot axes substantially parallel, the said other end of the last named pull cable being joined to the post and lever by extending across one end of each of said post and lever.

4. The invention according to claim 1, wherein said head includes a pivoted jaw, a lever attached to the jaw within the head, said jaw moving to open position by gravity, and a pull cable operatively coupled between the jaw lever and that end of the first lever to which the hand pull cable is attached.

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