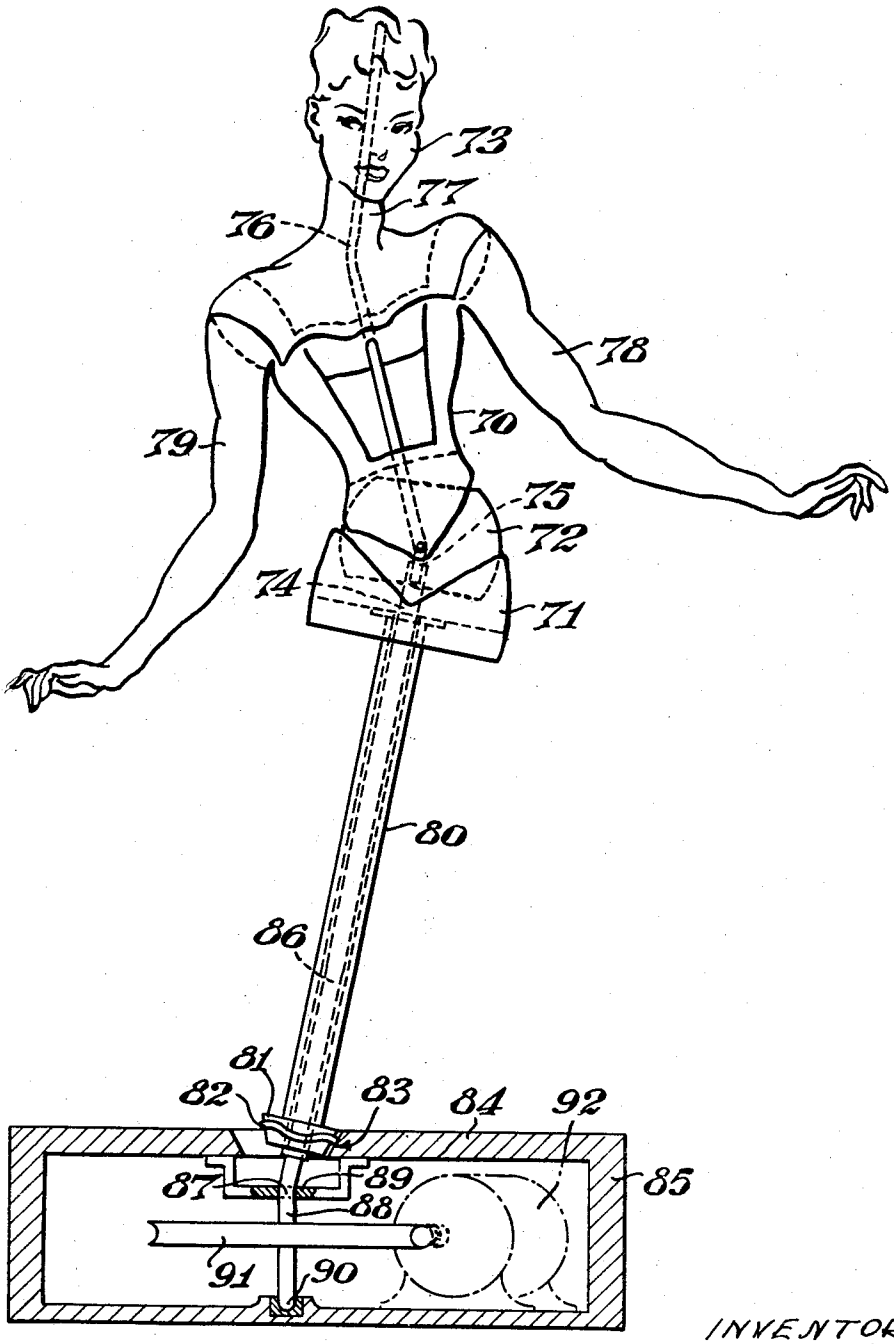
Oct. 19, 1954 B. JEPSON 2,691,845

MOVABLE FIGURE DEVICE

Filed March 8, 1950



INVENTOR
BERNARD JEPSON
By Emory P. Hoff Atty

Patented Oct. 19, 1954

2,691,845

UNITED STATES PATENT OFFICE

2,691,845

MOVABLE FIGURE DEVICE

Bernard Jepson, Weybridge, England

Application March 8, 1950, Serial No. 148,301

1 Claim. (Cl. 46—120)

1

This invention relates to the mechanical control of puppets which term includes any figures simulating human or animal form having articulated arms, legs, body, head, hands or other members, adapted to be moved by an interior mechanism. Such puppets, whatever form they take, will hereinafter be referred to as mechanical dolls.

It is the object of the invention to provide for an improved and simple form of doll which has a reasonable approximation to a human or animal form (hereinafter referred to as a mammalian figure) which is capable of performing pleasing and natural motions under the direction of the person manipulating the drive mechanism of the doll.

The accompanying drawing illustrates a typical construction according to the invention. As shown, the mammalian figure is of human form and the doll has an upper body portion 70 made for example of balsa wood and in the form of strutting so as to form a hollow member to which is articulated the head 73, and the lower trunk portion 71 the connection between portions 70 and 71 consisting of a ball and socket joint 72. Supported for free rotation within the head 73, the body portions 70, 71 and a leg portion 80 is an operating rod 74 having a crank 75 at the joint 72 and a crank 76 at the flexible neck portion 77 which extends from the head to body portion 70. The body has arms 78, 79 which may be articulated to the crank. The leg 80 is an elongated tubular extension 80 affixed to and projecting from the body portion 71. The leg carries at its lower end a gear 81 with an undulating track 82 which rolls on a tapered track 83 formed in the upper plate 84 of a stand 85; the operating rod 74 has an external portion 86 which passes through the tube 80 and at the lower end has a crank 87, below the gear 81, being terminated by a vertical part 88 which is mounted on bearings 89, 90 housed in the stand 84. The vertical rod part 88 carries a worm wheel 91 which forms part of a drive from an electric motor 92 mounted within the stand. When the operating rod is rotated by the drive of the motor 92 the undulating track of the gear 81 will roll on the track 83 with the result that simultaneously with the convolutions of the articulated members of the body, the body will move bodily around rod part 88 at a different speed and direction and the undulating track 82 will produce a varying speed. By this means the range of variation of movement of the doll is increased. To vary the tilt of the articulated

2

members, the point of articulation may have a double crank portion while an exaggerated bowing action may be achieved by slotting the figure at the point of articulation.

I claim:

A mechanical doll comprising a head, an articulated body comprising an upper body portion and a lower body portion to simulate a mammalian figure and articulated connections in said figure including one such connection between said head and body and another such connection in the form of a ball and socket joint between the upper and lower body portions, a tubular elongated body support affixed to and extending from said lower body portion, an operating rod extending through the head, the body and the tubular support, bearings in said head, body and support supporting said rod for free rotation therewithin, a crank in the rod at each of said connections, an extension of said rod projecting externally of said support, a stationary stand housing a rotational mounting for said extension, a drive wheel affixed to said extension for rotating said rod, a crank in said extension above said drive wheel and cam means affixed to and encircling the free end of said body support said cam means comprising an inclined undulating peripheral contact surface, and an inclined endless track on said stand adapted to be engaged by said contact surface in frictional running engagement to produce varying differential rotation between said rod and said support.

References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
176,590	Brigham	Apr. 25, 1876
569,950	Boettcher	Oct. 20, 1896
788,110	Lehmann	Apr. 25, 1905
1,615,663	Varga	Jan. 25, 1927
1,685,358	Harcourt	Sept. 25, 1928
1,784,183	Fike	Dec. 9, 1930
2,290,801	Dale et al.	July 21, 1942
2,526,886	MacDonald	Oct. 24, 1950
2,559,201	Schy	July 3, 1951

FOREIGN PATENTS

Number	Country	Date
237,083	Great Britain	1925
334,373	Great Britain	1930
370,473	Great Britain	1932
484,180	Great Britain	1936
958,188	France	Sept. 12, 1949
642,713	Great Britain	Sept. 13, 1950