

Aug. 17, 1954

R. SEIDL
SMILING DOLL

2,686,388

Filed May 4, 1951

2 Sheets-Sheet 1

Fig. 1

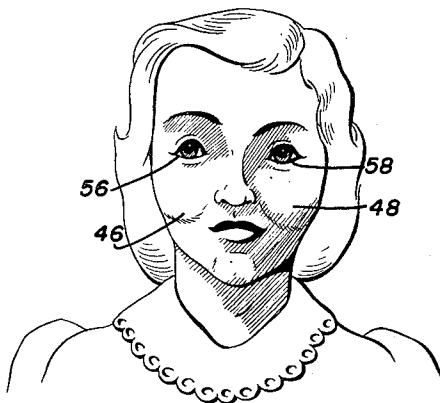
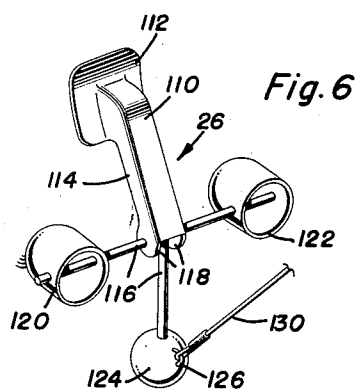
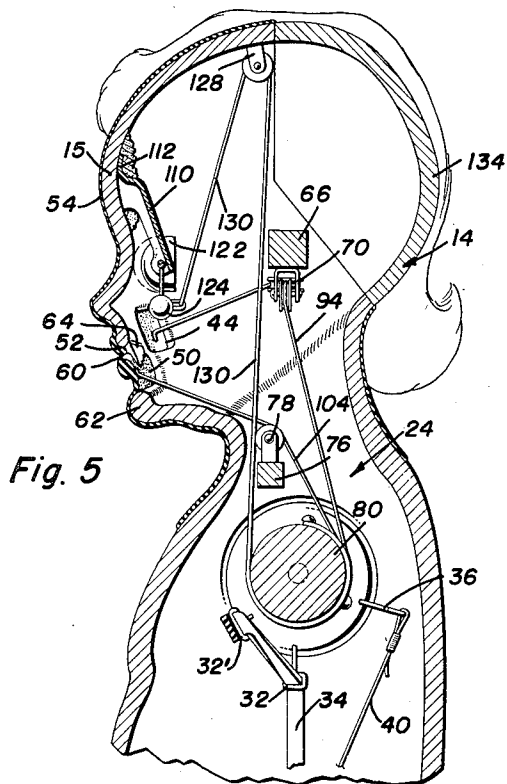
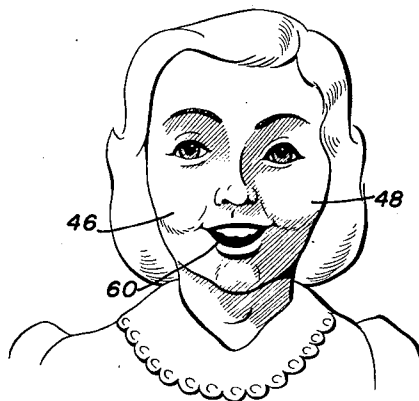


Fig. 2



Rudolph Seidl

INVENTOR.

BY *Oliver A. O'Brien*
and Harvey E. Jackson
Attorneys

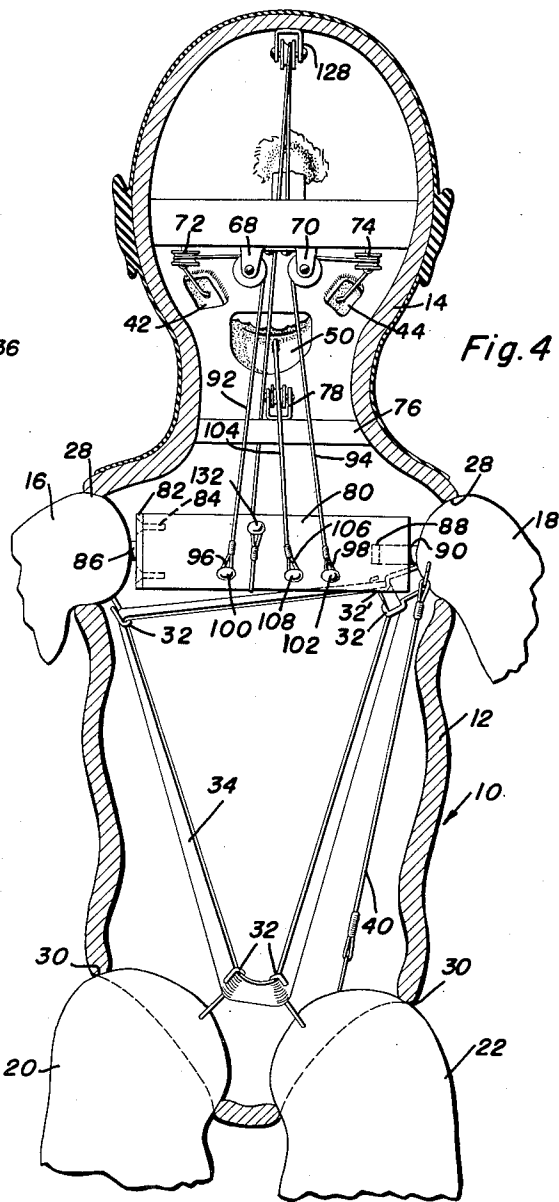
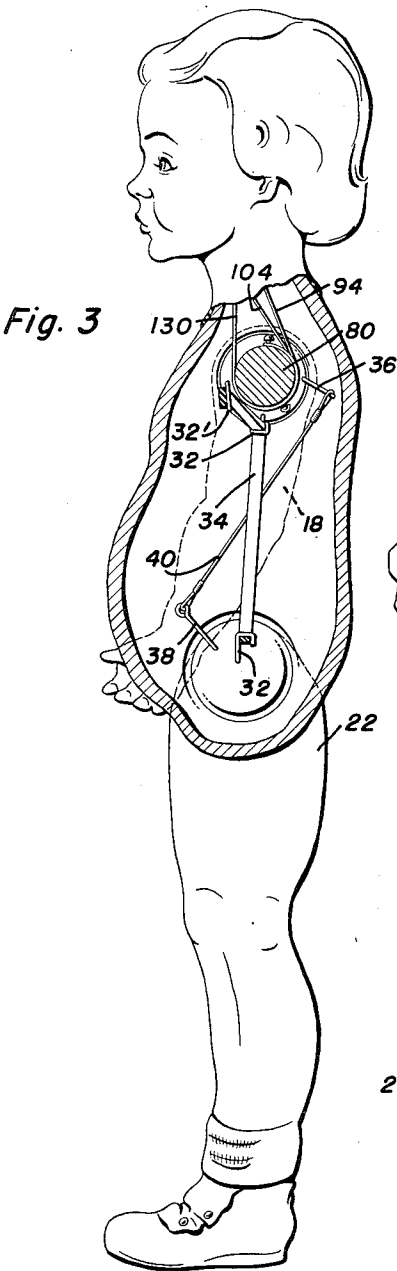
Aug. 17, 1954

R. SEIDL
SMILING DOLL

2,686,388

Filed May 4, 1951

2 Sheets-Sheet 2



Rudolph Seidl

INVENTOR.

BY *Charles A. O'Brien*
and Horsey B. Jackson
Attorneys

UNITED STATES PATENT OFFICE

2,686,388

SMILING DOLL

Rudolph Seidl, Council Bluffs, Iowa

Application May 4, 1951, Serial No. 224,536

4 Claims. (Cl. 46—120)

1

2

The present invention relates to improvements in dolls and more particularly to a doll which is provided with means whereby the facial expression of the doll can be altered to simulate a smile.

An object of the present invention is to provide a conventional doll with means whereby the facial appearance of the doll can be altered.

A further object of the present invention resides in the provision of means whereby the face of the doll can be made to effect a smile upon manipulation of one of the arms of the doll.

A still further object of the present invention resides in the provision of means whereby the doll can be made to smile or close its eyes and wherein still other means is provided for effecting a shaking movement of one of the arms of the doll upon manipulation of one of the legs of the doll.

A further object of the present invention resides in the provision of a common means for effecting manipulation of the means for effecting the smile and of the means for effecting closing of the eyes of the doll.

Various other objects and advantages will become apparent from the detailed description to follow. The best form in which I have contemplated applying my invention is clearly illustrated in the accompanying drawings, wherein:

Figure 1 is a front elevational view of the portion of the doll showing the normal facial expression thereof;

Figure 2 is a view similar to Figure 1 but wherein the doll has been made to assume a smiling appearance;

Figure 3 is a side elevational view of the doll with parts in section and showing the interior operating mechanism for the smiling doll;

Figure 4 is a rear elevational view of the doll with parts broken away and parts in section;

Figure 5 is a vertical sectional view through the upper portion of the doll; and

Figure 6 is a detailed perspective view of the means for effecting opening and closing of the eyes of the doll.

Referring more particularly to the drawings, wherein like numerals designate like parts throughout, the numeral 10 designates generally the smiling doll of the present invention which is constituted of a body 12, head 14, arms 16 and 18 and legs 20 and 22. The numeral 24 designates generally the means for effecting a smile on the doll while the numeral 26 designates generally the means for opening and closing the eyes of the doll.

The present invention contemplates the use of

a substantially conventional doll having a body and head integrally connected together with arms and legs engaged in openings in the body 12 such as at 28 and 30. The inner ends of the arms and upper ends of the legs are each provided with a hook 32 through which a tape 34 is engaged for holding the arms and legs to the body 12. The arm 18 is provided with a second hook 32' through which the tape 34 is engaged, the hook 32' being radially displaced relative to the hook 32 on the arm 18, as best seen in Figures 3 and 4. The arm 18 and leg 22 have pins 36 and 38 extending therefrom and terminating in eyelets. The cable 40 interconnects the eyelets of the pins 36 and 38 whereby rotation of the arm or leg effects rotation of the opposing member.

Looking now at Figures 4 and 5, the means 24 for effecting smiling of the doll will be seen to comprise a pair of pads 42 and 44 which are secured to the inner surfaces of the head 14 behind the cheek portions of the doll, as at 46 and 48 (see Figures 1 and 2). A third pad 50 is secured to the inner surface of the head immediately below the mouth 52 of the doll.

Substantially the entire head and neck of the doll is covered with a rubber-like covering or skin 54 having openings 56 and 58 for the eyes and 60 for the mouth. The shell 14 of the head is provided with openings at the cheek portions immediately above the chin portion 62 so that the pads 42, 44 and 50 can be integrally formed with the rubber-like covering 54. Suitable simulated teeth 64 can be fixedly secured to the shell 14 at the mouth 52.

A first rod 66 is disposed transversely of the head 14 and has its ends supported thereby. A pair of pulleys 68 and 70, lying in a vertical transverse plane are secured to the underside of the rod 66 in alignment with each other. A second pair of pulleys 72 and 74 lie in a horizontal transverse plane and are also supported by the underside of the rod 66.

A second rod 76 is disposed transversely of the neck portion of the doll substantially parallel to the rod 66 and has its ends secured thereto. A single pulley 78 is disposed transversely of the second rod 76 and is supported thereby on its upper surface.

Figures 4 and 5 show the provision of a cylindrical member 80 which has one end secured to the plate 82 by means of the screws 84. The plate 82 is fixed for rotation with the arm 16 by means of the connecting pin 86. The other end of the cylindrical member 80 has a bearing bore 88 provided therein and in axial alignment with

the connecting pin 86. The bearing pin 90 is secured to the arm 18 and received in the bearing bore 88 whereby the arm 18 can relatively pivot with respect to the cylindrical member 80.

A pair of cables 92 and 94 have one set of ends secured to the pair of pads 42 and 44 while the other set of ends are looped at 96 and 98 for engagement over the buttons 100 and 102 which are in turn fixedly secured to the cylindrical member 80. Another cable 104 has one end secured to the third pad 50 while its other end is looped at 106 and engaged over the button 108. Intermediate portions of the cables 92, 94 and 104 are engaged over the pulleys 72 and 68, 70 and 74, and 78, respectively.

A means 26 for effecting opening and closing movement of the eyes of the doll is best disclosed in Figure 6 as including a supporting bracket 110 which has a flat end 112 adapted to be secured to the inner surface of the forehead of the doll's head 14, as at 15. The bracket 110 has an arm portion 114 which extends from the flat portion 112 and terminates in a horizontal plane common with the eyes of the doll. A T-shaped wire element 116 is journaled in the bearing portion 118 of the arm 114 and has a pair of simulated eyes 120 and 122 carried by the outer ends of the horizontal wire of the T. The lower end of the vertical wire of the T 116 has a ball 124 secured thereto and provided with an eyelet 126.

Adjacent the upper end of the head 14 of the doll, a pulley 128 is secured. A cable 130 has one end secured to the eyelet 126, an intermediate portion of the cable 130 extending over the pulley 128, and the other end portion of the cable 130 being secured to the cylindrical member 80 at 132. It is to be noted that the cable 130 extends around the cylindrical member 80 in a direction opposite to that of the cables 92, 94 and 104.

Looking once again at Figure 5, it will be seen that the head 14 is provided with a removable portion 134 whereby access can be had to the interior of the doll for adjusting, repairing or replacing the mechanism within the doll.

In view of the foregoing, it is believed that a smiling doll has been provided which will accomplish all of the objects hereinabove set forth. Furthermore, in view of the foregoing description of the structure, the operation thereof should be obvious to one skilled in the art.

When it is desired to alter the facial expression of the doll so that the doll appears to be smiling, the arm 16 is pivoted forwardly, whereby the cables 92, 94 and 104 will be wound on the cylindrical member 80. The pads 42 and 44 will be moved upwardly and rearwardly relative to the mouth 52 of the doll. At the same time, the pad 50 will be moved downwardly exposing the simulated teeth 64 of the doll. The result is that the doll will appear to be smiling.

Should it be desired to have the doll wink, the arm 16 is moved rearwardly, thereby winding the cable 130 on the cylindrical member 80. The T-wire element 116 will be pivoted with respect to the bracket 110 thereby causing the simulated eye and eyelid elements 120 and 122 to move downwardly so that the eyes of the doll will appear to be closed.

The doll can be made to wink simply by giving a quick pivoting movement to the arm 16 rearwardly and then back to the original vertical position of the arm.

Inasmuch as the smiling and winking operations of the doll are effected by the common operating means 24, it will readily be seen that the

doll can be made to alternately smile and wink by manipulation of the arm 16.

Furthermore, if it is desired to have the doll appear to be shaking hands, the leg 22 is pivoted rearwardly, thereby pulling on cable 40 and effecting pivoting of the arm 18 in a hand shaking manner.

Various mechanical modifications and substitutions can be made without departing from the real spirit and purpose of the present invention.

Having described the invention, what is claimed as new is:

1. In a doll having a head, body, arms and legs, means for altering the facial expression of the doll comprising a pair of pads secured to the inner surface of the head of the doll at the cheeks thereof, a third pad secured to the inner surface of the doll below and in juxtaposition to the mouth of the doll, cables connected to said pads, a common actuating member, said cables being connected to said common actuating member and actuatable to effect movement of said pads whereby the facial expression of the doll will appear to be of a smiling character, said common member including a cylindrical member interconnecting the inner ends of said arms for rotation with at least one of said arms, and said cables each having one of its ends secured to said cylindrical member for winding thereon, a rod fixedly carried within the head of said doll above said pair of pads and substantially in parallel relation to said cylindrical member, pulleys supported on said rod, and intermediate portions of the cables connected to said pair of pads being disposed over said pulleys whereby rotation of said member can effect rearward and upward movement of the cheek portions of the doll's head.

2. In a doll having a head, body, arms and legs, with a rubber-like covering providing a life-like face having a mouth opening between an upper and a lower lip, means operative to alter the facial expression of the doll comprising a pair of pads secured to the inner surface of the face of the doll at the cheeks thereof, a third pad secured to the inner surface of the face of the doll below and in juxtaposition to the mouth of the doll, cables connected to said pads, a common actuating member, said cables being connected to said common actuating member and actuatable to effect movement of said pads whereby the facial expression of the doll will be altered, said common member including a cylindrical member interconnecting the inner ends of said arms for rotation with at least one of said arms, and said cables each having one of its ends secured to said cylindrical member for winding thereon, a rod fixedly carried within the head of said doll above said pair of pads and substantially in parallel relation to said cylindrical member, pulleys supported on said rod, and intermediate portions of the cables connected to said pair of pads being disposed over said pulleys whereby rotation of said member can effect rearward and upward movement of the cheek portions of the doll's head, a second rod carried within the neck of the doll, a pulley carried by said second rod and disposed below the mouth opening, the cable connected to said third pad having an intermediate portion engaged over said last recited pulley whereby rotation of said cylindrical member can effect downward movement of the lower lip of the doll's face, whereby rotation of said cylindrical member in one direction causes upward and rearward movement of the cheeks and downward movement of the lower lip to simulate a smile.

5

3. In a doll having a head, a body, arms and legs, a rubber-like covering for said head providing a life-like face having openings for the eyes and mouth of the doll, simulated teeth disposed within the mouth of the doll and simulated eyes coacting with the eye openings, means for altering the facial expression of the doll comprising a pair of pads secured to the inner surface of the face of the doll at the cheeks thereof, a third pad secured to the inner surface of the face of the doll below and in juxtaposition to the mouth of the doll, cables connected to said pads, a common cylindrical actuating member, said cables being connected to said member and actuatable to effect movement of said pads whereby the facial expression of the doll will appear to be of a smiling character, a rod fixedly carried within the head of said doll above said pair of pads and substantially in parallel relation to said cylindrical member, pulleys supported on said rod, and intermediate portions of the cables connected to said pair of pads being disposed over said pulleys whereby rotation of said member can effect rearward and upward movement of the cheek portions of the doll's head.

4. In a doll having a substantially rigid body and head portion, means for altering the facial expression of the doll comprising a simulated skin on the face of said doll, said skin providing a life-like face having a mouth opening, a pair of pads secured to the inner surface of said skin at the cheeks thereof, a third pad secured to the inner surface of the skin in juxtaposition to

6

the mouth of the doll, cables attached to said pads, said body having arm receiving sockets therein, arm members mounted in said sockets, a cylindrical member mounted on the arm members, one of said arms being connected in driving engagement for rotating said cylindrical member in response to movement of said arm, said cables being attached to said cylindrical member, a transverse rod secured in the head, pulley members mounted on said rod, the cables from said cheek pads being entrained over said pulleys, a second rod secured in the neck of said doll, an upstanding pulley mounted on said second rod, the cable from said third pad being entrained over said upstanding pulley.

References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
20 Re. 19,657	Bowers	July 30, 1935
839,770	Kalkbrenner	Dec. 25, 1906
1,164,816	Huston	Dec. 21, 1915
1,359,778	Zimmerman	Nov. 23, 1920
1,489,385	Ciavatti	Apr. 8, 1924
25 1,606,716	Munyard	Nov. 9, 1926
1,693,157	Rauffus	Nov. 27, 1928
1,978,337	Bowers	Oct. 23, 1934
2,548,237	Pearson	Apr. 10, 1951

FOREIGN PATENTS

Number	Country	Date
556,163	Great Britain	Sept. 22, 1943