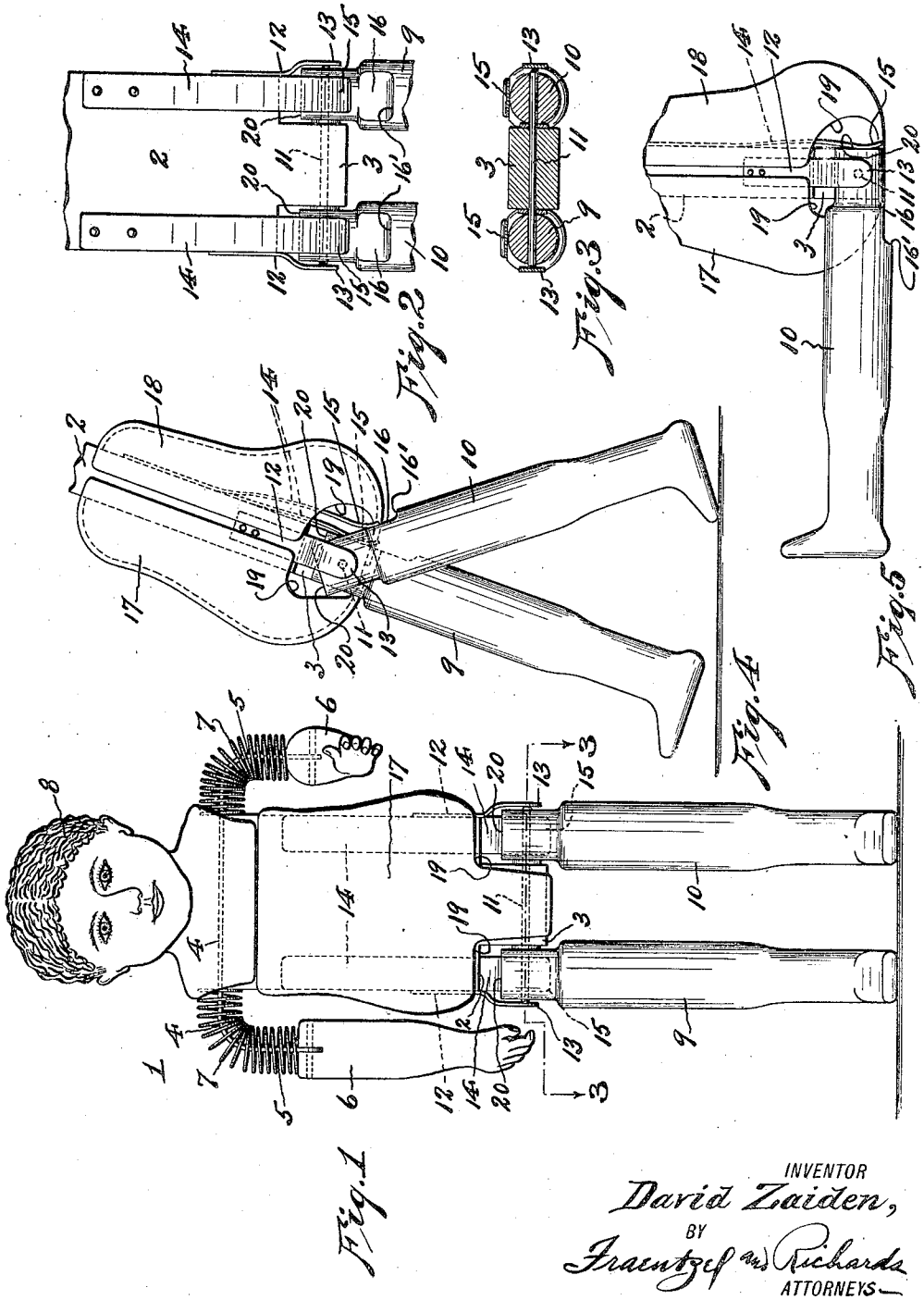
D. ZAIDEN.

WALKING DOLL.

APPLICATION FILED DEC. 14, 1920.

1,423,382.

Patented July 18, 1922.



INVENTOR

David Zaiden,

BY

Fraentzel and Richards

ATTORNEYS

UNITED STATES PATENT OFFICE.

DAVID ZAIDEN, OF EAST ORANGE, NEW JERSEY.

WALKING DOLL.

1,423,382. Specification of Letters Patent. Patented July 18, 1922.

Application filed December 14, 1920. Serial No. 430,675.

To all whom it may concern:

Be it known that I, DAVID ZAIDEN, a citizen of Russia, residing at East Orange, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Walking Dolls, and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to characters of reference marked thereon, which form a part of this specification.

The present invention relates, generally, to toys, such as dolls, toy animals and the like; and the invention has reference, more particularly, to an improved means for connecting the legs of such toys to the body thereof whereby the toy may be so manipulated as to cause the legs to simulate the motions of walking.

The invention has for its principal object to provide a novel simple and very cheap means for securing the legs to the body of a toy, such as a doll, so that the legs may be caused to simulate the motions of walking.

The invention has for a further object to provide means for securing the legs to the body of the toy so that not only may walking motions be caused, but also so that the legs may be positioned at right angles to the body of the toy, whereby the latter may be placed in a sitting posture without interfering or disarranging the devices by means of which said walking motions are attained.

Other objects of the present invention, not at this time more particularly enumerated, will be clearly understood from the following detailed description of the same.

With the various objects of the invention in view, the same consists, primarily, in the novel construction of toy hereinafter set forth; and, furthermore, the invention consists in the novel arrangements and combinations of the various devices and parts, as well as in the details of the construction thereof, all of which will be hereinafter more fully described and claimed.

The invention is clearly illustrated in the accompanying drawings, in which:—

Figure 1 is a front view of a doll provided with the novel leg connections made according to and embodying the principles of the present invention.

Figure 2 is a back view of portions of the body and leg members of the doll, illustrating the novel means for securing the leg members to the body so as to permit the former to simulate walking movements.

Figure 3 is a detail horizontal section, taken on line 3—3 in said Figure 1.

Figure 4 is a side elevation of the lower body and leg members of my novel doll, illustrating the manner in which the leg connections operate when said leg members are caused to simulate walking movements.

Figure 5 is a side elevation of the lower body and leg members of my novel doll, with the said leg members positioned relative to the body so as to permit of the doll being placed in a sitting posture.

Similar characters of reference are employed in all of the above described views, to indicate corresponding parts.

Referring now to said drawings, the reference character 1 indicates a doll, and 2 indicates the main trunk or body core thereof, which preferably comprises a substantially rectangular block of wood of suitable width and thickness, and provided at its lower end with a centrally disposed downwardly projecting tongue or extension 3 of reduced width. Secured upon the upper end of said trunk or body core 2, so as to extend transversely across the same and beyond each side of said core 2, is a shoulder bracket 4, preferably made of metal, and having its free ends 5 turned downwardly so as to be positioned parallel to and outwardly offset from the sides of the core 2. Pivotally connected with the lower extremities of said free ends 5 are fore-arm portions 6. Arranged about the said shoulder bracket 4 and its ends 5, between each fore-arm portion 6 and the core 2, are coil springs 7. Said springs 7 not only serve to fill out the contour of the arm and shoulder portions, but also serve to stabilize the position of the fore-arm portions in either their downwardly hanging or upwardly turned horizontal positions, by reason of the pressure exerted upon said parts by the compression of the springs, all of which will be clearly understood from an inspection of Figure 1 of the drawings. The reference character 8 indicates the doll head, which is suitably secured to the upper end of the core 2.

The reference characters 9 and 10 indicate the respective leg portions of the doll. Said leg portions 9 and 10 are pivotally connect-

ed to the core 2, so as to be respectively positioned at opposite sides of said tongue or extension 3. The means for so pivoting said leg portions comprises a transverse pivot pin 11 which is supported by passing the same through said tongue or extension 3, so that the respective ends of said pivot pin project outwardly from the sides of said tongue or extension 3. The upper ends of said leg portions are respectively engaged on the oppositely projecting ends of said pivot pin. Connected with the sides of said core 2 are retaining members 12, preferably made of flat metal strips, the lower free ends 13 of which respectively extend over the respective free ends of said pivot pin 11 as the same project from the outer sides of the leg-portions, thus serving not alone to retain the latter against accidental displacement from the pivot pin ends, but also retaining said pivot pin itself from displacement.

Secured at their upper ends upon the back of said core 2, adjacent to each side of the latter and in vertical alinement with said respective leg portions are flat or leaf springs 14, the free ends 15 of which project downwardly from said core 2 so as to respectively engage the rear sides of said leg portions at points opposite or slightly below the point of pivotal swing of the latter.

The rear sides of said leg portions are provided with flat seats 16 upon which said free ends 15 of said springs 14 ride. Said seats 16 terminate at their lower ends in shoulders 16′, which engage the ends of said springs to limit the rearward swinging movement of said leg portions.

Secured to said core 2 are front and back body shells 17 and 18, the same being made of any suitable material, and being shaped to fill out the contour of the trunk or body of the doll. Said shells 17 and 18 are cut away at their lower sides, as at 19, to provide clearance spaces accommodating the movements of the upper ends of said leg portions.

The manner of manipulating the doll to cause the respective leg-portions 9 and 10 to simulate successive stepping or walking movements, is as follows:—

The child in playing with the doll, places the same on the floor or other surface, and holds the same by grasping one of the forearm portions 6, which has been turned to assume horizontal position, and which is stabilized in such position by the pressure of its compression spring 7, as above mentioned. When thus holding the doll, by slightly tipping the same sideways and inwardly, the leg 9 is slightly raised to clear its foot from the floor, and the weight of the doll is then supported upon the leg 10. By then moving the doll bodily forward, the leg 10 will be caused to swing rearwardly on its pivotal connection against the tension of the leaf spring 14 engaged therewith, thereby causing the leg 10 to incline rearwardly, while the leaf spring 14 engaging the leg 9 holds the same against rearward movement, so that by the movement of the body of the doll said leg 9 is caused to incline forwardly, all as shown in Figure 4 of the drawings. By then tipping the doll sideways and outwardly, the leg 9 is brought down with its foot portion engaging the floor, and at the same time the leg 10 is slightly raised to cause its foot portion to clear the floor, whereupon the additional tension stored in the spring 14 engaging the leg 10, which was produced by the flexing of the spring when the leg 10 swings rearwardly, will thereupon cause a forward swinging movement of the leg 10 to return the same to normal initial position. Forward movement of the body of the doll will now cause the leg 9 to swing rearwardly against the tension of the leaf-spring engaging the same, while the leg 10 is held so as to move into advanced position ready for the next stepping engagement with the floor. It will thus be apparent that successive stepping movements may be thus caused at will, so that as the child, by the simple manipulations above explained, advances the body of the doll, the legs of the latter will be caused to simulate walking movements. It will be apparent that the means for pivoting the legs 9 and 10 together with the co-operative action of the flat leaf springs 14 in connection therewith, affords a very simple arrangement for the purpose intended, and an arrangement which is not only effective, and very cheap to manufacture, but which is also, by reason of its simplicity little likely to become disarranged or out of order.

Another advantage of my novel means for attaching and controlling the leg movements of the doll for walking, lies in the fact that the attachments are so constructed and related that, if desired, the legs 9 and 10 may be raised to forwardly extending horizontal position at right angles to the doll body, so that the doll may be easily placed in a sitting posture. The springs 14 readily yield to such movement of the legs, and furthermore, by reason of the fact that the upper extremities of the legs present flat end surfaces 20, which receive the pressure of the springs 14 when the legs are so raised, the said legs are thereby stabilized or held in such raised position relative to the body, and the doll is thereby maintained easily against falling or collapsing from the sitting posture, all of which is clearly illustrated in Figure 5 of the drawings.

I am aware that some changes may be

made in the arrangements and combinations of the various devices and parts, as well as in the details of the construction of the same, without departing from the scope of my present invention as set forth in the foregoing specification, and as defined in the appended claims. Hence, I do not limit my invention to the exact arrangements and combinations of the various devices and parts as described in said specification, nor do I confine myself to the exact details of the construction of said parts as illustrated in the accompanying drawings.

I claim:—

1. In a toy of the kind described, a body portion, leg portions pivotally connected with said body portion, and flat leaf springs attached to said body portion, the free ends of said springs respectively engaging the rear sides of said respective leg portions to hold the latter in normal longitudinal alinement with said body portion yet yieldable to rearward swinging movement.

2. In a toy of the kind described, a body portion having a transverse shoulder bracket fixed to its upper end, said shoulder bracket having outwardly off-set downwardly extending free ends, fore-arm portions pivotally connected with the free ends of said shoulder bracket, compression springs arranged about said bracket ends between said body portion and said forearm portions, said compression springs being adapted to stabilize the fore arm portions in either lowered vertical or raised horizontal positions, leg portions pivotally connected with the lower end of said body portion, and flat leaf springs attached to said body portion, the free ends of said springs respectively engaging the rear sides of said respective leg portions to hold the latter in normal longitudinal alinement with said body portion yet yieldable to rearward swinging movement.

3. In a toy of the kind described, a body portion having a core provided at its lower end with a central extension of reduced width, leg members having their upper ends pivotally connected with said extension respectively at opposite sides of the latter, flat leaf springs secured to the back of said core in vertical alinement with said respective leg portions, the free ends of said springs being adapted to engage the rear sides of said leg portions to hold the latter in normal longitudinal alinement with said core yet yieldable to rearward swinging movement.

4. In a toy of the kind described, a body portion having a core provided at its lower end with a central extension of reduced width, leg members, means for pivotally connecting said leg members respectively at opposite sides of said extension, flat leaf-springs secured to the back of said core in vertical alinement with said respective leg portions, said leg-portions having flat seats at the rear sides of their upper end portions engageable by the free ends of said leaf-springs, and said leg-portions having shoulders disposed at the lower ends of said seats adapted to be engaged by the extremities of said leaf-springs to limit the rearward swinging movement of said leg portions, said leaf-springs normally holding said leg-portions in longitudinal alinement with said core yet yieldable to rearward swinging movement.

5. In a toy of the kind described, a body portion having a core provided at its lower end with a central extension of reduced width, leg members, means for pivotally connecting said leg members respectively at opposite sides of said extension, flat leaf-springs secured to the back of said core in vertical alinement with said respective leg portions, said leg-portions having flat seats at the rear sides of their upper end portions engageable by the free ends of said leaf-springs, said leg-portions having shoulders disposed at the lower ends of said seats adapted to be engaged by the extremities of said leaf-springs to limit the rearward swinging movement of said leg portions, said leaf springs normally holding said leg-portions in longitudinal alinement with said core yet yieldable to rearward swinging movement, said leg portions being movable forwardly and upwardly to positions at substantially right angles to said core, and the upper extremities of said leg-portions having flat end surfaces engageable by said leaf-springs to stabilize said leg-portions in such raised positions.

6. In a toy of the kind described, a body portion, leg-portions pivotally connected with said body portion, flat-leaf springs attached to said body portion, the free ends of said leaf-springs respectively engaging the rear sides of said respective leg portions to hold the latter in normal longitudinal alinement with said body portion yet yieldable to rearward swinging movement, said leg portions being movable forwardly and upwardly to positions at substantially right angles to said body portion, and the upper extremities of said leg-portions having flat end surfaces engageable by said leaf springs to stabilize said leg portions in such raised positions.

In testimony that I claim the invention set forth above I have hereunto set my hand this 9th day of December, 1920.

DAVID ZAIDEN.

Witnesses:
GEORGE D. RICHARDS,
EVA E. DESCH.