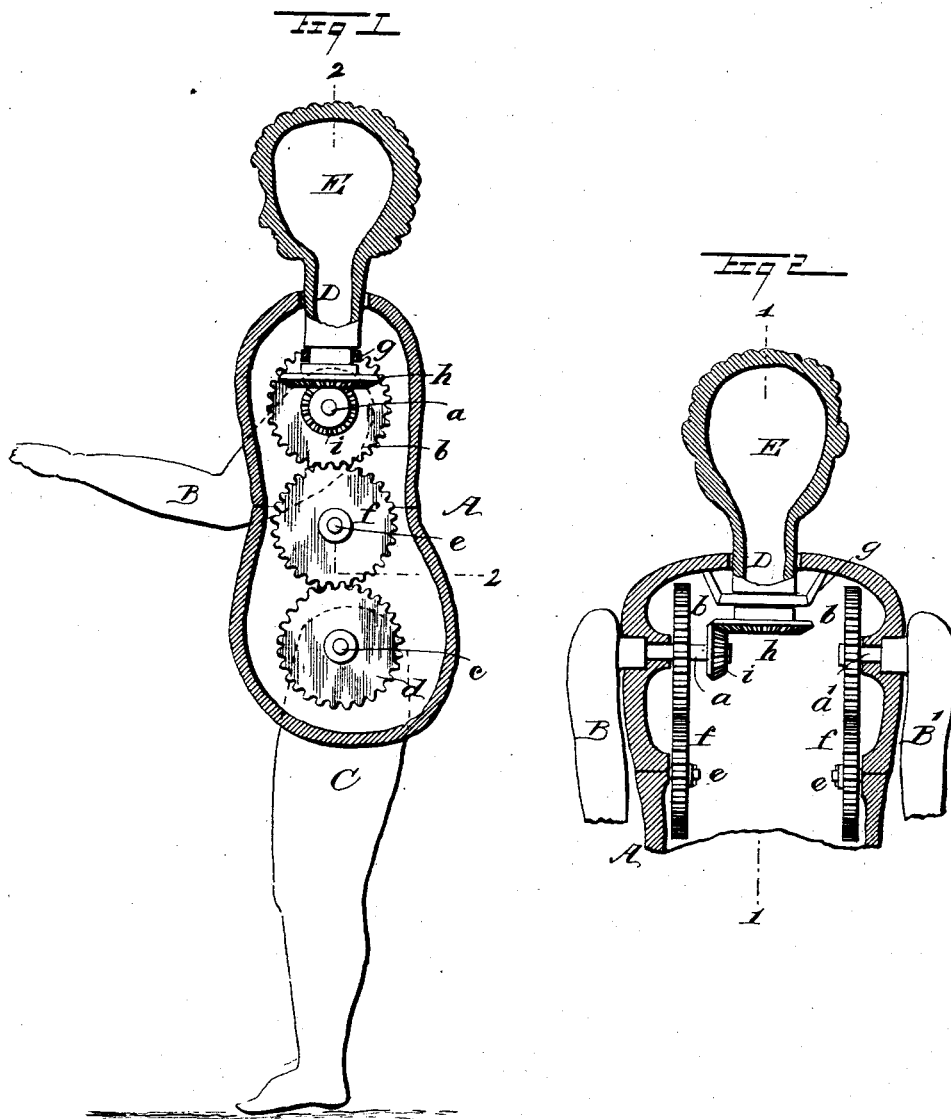


(No Model.)

D. S. McELROY.
MECHANICAL DOLL.

No. 525,716.

Patented Sept. 11, 1894.



WITNESSES:

H. Walker
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UNITED STATES PATENT OFFICE.

DANIEL S. McELROY, OF NEW YORK, N. Y.

MECHANICAL DOLL.

SPECIFICATION forming part of Letters Patent No. 525,716, dated September 11, 1894.

Application filed December 16, 1893. Serial No. 493,854. (No model.)

To all whom it may concern:

Be it known that I, DANIEL S. McELROY, of New York city, in the county and State of New York, have invented a new and Improved Mechanical Doll, of which the following is a specification, reference being had to the annexed drawings, forming a part thereof, in which—

Figure 1 is a vertical transverse section, taken on line 1—1 of Fig. 2, of my improved mechanical doll; and Fig. 2 is a vertical section taken on line 2—2 in Fig. 1, in a plane at right angles to that of Fig. 1.

Similar letters of reference indicate corresponding parts in both views.

The object of my invention is to construct a doll having movable legs, arms and heads connected so that by moving one of the arms, the leg upon that side will be moved in the same direction, the same movement also causing the turning of the head.

My invention consists of a doll in which the leg and arm of either side are connected by a train of gearing consisting of three spur wheels, one attached to the pivot of the arm, the other to the pivot of the leg, and an intermediate wheel connecting these spur wheels.

It also consists in placing upon the pivot of one of the arms and upon the neck, bevel wheels which engage each other, so that when one of the arms is turned, the head of the doll will be turned, all as will be hereinafter more fully described.

The body A of the doll, which is of the usual form, is made hollow, and the arms B B' are attached to pivots a a' extending through the side of the body, near the shoulder, each carrying a spur wheel b. To the pivot c of the leg C, which extends into the body of the doll at the hip, is secured a spur wheel d, and upon an inwardly-projecting stud e located between the pivots a, c, is journaled an intermediate wheel f which meshes into the wheels b, d. By this construction, when the arm B is turned with its pivot, the rotation of the spur wheel b turns the intermediate wheel f, which in turn rotates the spur wheel d, causing the leg C to move in the direction in which the arm is moved.

The neck D, which is formed integral with the head E, is journaled in the top of the body of the doll, and in a stirrup g attached to the inner surface of the top of the body of the doll.

Upon the end of the neck extending through

the stirrup g is mounted a bevel wheel h, which is engaged by a bevel pinion i on the inner end of the pivot a, so that when the arm B is moved, thereby rotating the pinion i, motion is imparted to the head of the doll, causing it to turn toward one side or the other according to the direction in which the arm B is moved.

By dexterous manipulation the movement of the arm B may be so timed as to cause the legs C to move in imitation of walking, the head at the same time turning from one side to the other.

I do not limit or confine myself to the exact form or proportions herein shown and described, as the gearing for moving the head may be omitted, and the arms and legs may be operated in the manner described, or the gearing for operating the legs may be omitted while the movement of one or both of the arms causes the movement of the head as already described; neither do I limit or confine myself to the exact form of mechanical movement by which the motion is communicated from the arm to the leg, as I may substitute any well known arrangement of levers in lieu of the gear wheels.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, with a doll having movable arms B B', movable legs C C', of a spur wheel attached to the pivot of the arm B, the intermediate wheel f, and the spur wheel d attached to the pivot of the leg, as herein specified.

2. The combination, with a doll provided with the movable arm and movable head, of a bevel pinion attached to the pivot of the arm, and a bevel wheel attached to the neck, the said bevel wheels being in engagement with each other, so that the turning of the arm will move the head, substantially as specified.

3. The combination, in a doll provided with pivoted arms, legs and head, of a spur wheel attached to the pivot of the arm, the spur wheel d attached to the pivot of the leg, the bevel pinion i attached to the pinion of the arm, and a bevel wheel h attached to the neck, as herein specified.

DANIEL S. McELROY.

Witnesses:

C. SEDGWICK,

F. W. HANAFORD.