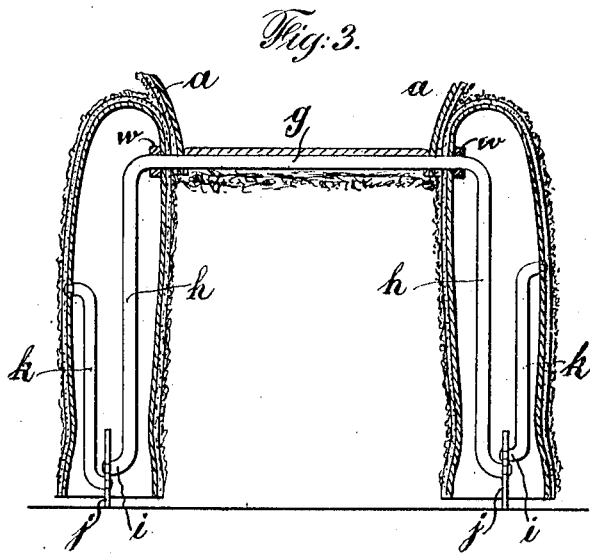
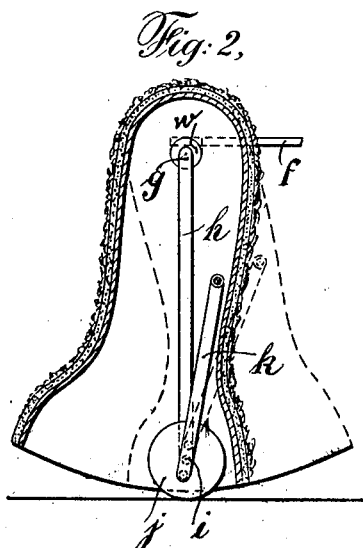
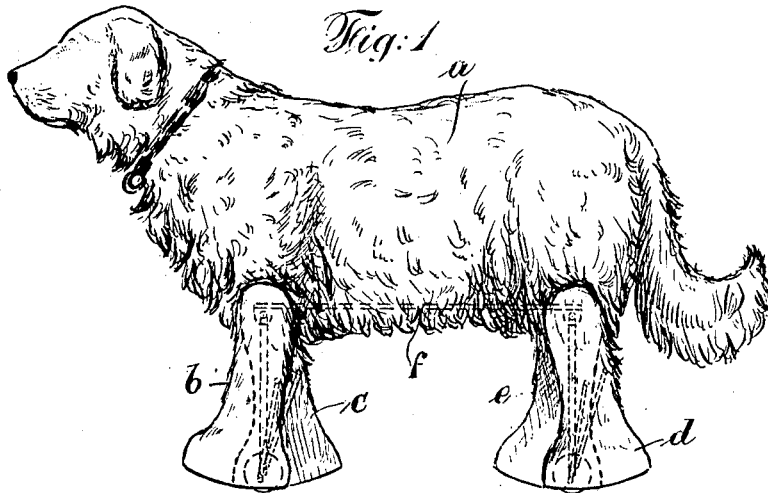


H. MÜLLER.
 MEANS FOR PRODUCING A WALKING MOVEMENT IN TOY FIGURES.
 APPLICATION FILED OCT. 25, 1910.

1,035,098.

Patented Aug. 6, 1912.



Witnesses:
 Max B. A. Dorning
 Corinne Myers.

Inventor
 Heinrich Müller
 By his Attorney
 L. K. Böhm.

UNITED STATES PATENT OFFICE.

HEINRICH MÜLLER, OF NUREMBERG, GERMANY, ASSIGNOR TO NÜRNBERGER METALL-
UND LACKIERWARENFABRIK VORMALS GEBRÜDER BING, AKTIENGESELLSCHAFT,
OF NUREMBERG, GERMANY, A CORPORATION OF GERMANY.

MEANS FOR PRODUCING A WALKING MOVEMENT IN TOY FIGURES.

1,035,098.

Specification of Letters Patent. Patented Aug. 6, 1912.

Application filed October 25, 1910. Serial No. 588,949.

To all whom it may concern:

Be it known that I, HEINRICH MÜLLER, a subject of the German Emperor, residing at Nuremberg, in the county of Mittelfranken and State of Bavaria, Germany, have invented certain new and useful Improvements in Means for Producing a Walking Movement in Toy Figures, of which the following is a specification.

10 This invention has reference to improvements in toy figures.

It is the special object of my invention to produce toy figures, especially animals, which when drawn or pushed forward on a floor or table make a walking or running movement, the legs performing then a forward and backward motion alternately and successively.

20 The invention consists in a novel combination of instrumentalities for this purpose, the characteristic of which is that the mechanism for thus moving each leg is independent of the others and is housed within the leg with which it is associated.

25 The invention will first be described in connection with the accompanying drawing and will then be more particularly pointed out in the claim.

30 In the drawing—Figure 1 represents in side elevation a toy dog embodying the invention in its preferred form. Fig. 2 is a vertical section of one of the pivoted hollow legs with the mechanism for actuating the same mounted therein. Fig. 3 is a vertical cross section at right angles to the section in Fig. 2, through two opposite hollow legs of the toy, showing the cross bar or rod on which the two legs are hung, and showing also the actuating mechanisms for the two legs, each one of said actuating mechanisms being independent of the other and housed in the leg with which it is associated.

45 Similar characters of reference denote like parts in all the figures.

50 The walking mechanism is mounted within the body of the animal preferably on a frame to which the body of the animal is secured while the legs are pivotally movable on said frame, the principal part of the operative mechanism extending into the hollow legs.

In Fig. 1 of the drawings *a* represents the body of the animal, *b*, *c*, *d*, *e*, are the four legs and *f* is part of the frame whose side members or cross bars *g* extend slightly beyond the body *a* of the animal for the purpose of mounting pivotally thereon the hollow legs. The cross bars or rods *g* have each a downward extension *h* on each side, see Fig. 3. These downward rods *h* pass through the hollow leg and are curved at the bottom so as to form axles *i* for the wheels or rollers *j* that rest on the ground. The end of the bent portion of the rod *h* on the opposite side of the wheel is somewhat flattened to form a head so that the wheel can not fall off. To prevent a lateral movement of the rods *g* securing washers or other suitable means *w* are provided as shown in Figs. 2 and 3. The downwardly extending rods *h*—one within each hollow leg—constitute fixed supports upon the lower ends of which the wheels are freely mounted. Each wheel revolves independently of the others, projecting slightly below the bottom of the leg so as to contact with the surface on which the toy rests.

For the purpose of producing the forward and backward motion of the legs in alternate and successive order there is a crank connection between each one of the independently revoluble wheels and the hollow leg with which it is associated. For this purpose, in the present instance an eccentric recess has been provided in each of the wheels into which reaches the curved bottom end of a connecting rod *k* whose curved upper end is pivotally mounted in the side of the respective leg. The legs as well as the body of the animal may be made for instance of metal sheeting. From the above it is evident that the toy figure or animal when pushed or pulled forward performs a walking motion by means of the connecting rods *k* each pivotally secured in the side of the leg and in the eccentric recess of the wheel. When said wheels travel forward the legs are moved forward and backward owing to said eccentric connection of the link rod with the wheel and as the eccentric recesses with the ends of the link rods therein are always in various locations the legs are moved forward and

backward in alternate and successive order each leg being movable independently of the others.

I claim as my invention:

- 5 In a mechanism for producing a walking motion in toy figures, the combination of a body member, hollow legs pivoted thereto, a fixed support within each of the hollow legs, a wheel freely mounted on the lower
10 end of each support, and a crank connec-

tion between the wheel and leg members whereby upon the rotation of the wheels the legs are given a reciprocating motion.

In testimony whereof I affix my signature in presence of two witnesses.

HEINRICH MÜLLER.

Witnesses:

HANS SCHODER,
E. HELLMUTH.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
