

N<sup>o</sup> 9614



A.D. 1902

Date of Application, 25th Apr., 1902

Complete Specification Left, 19th Sept., 1902—Accepted, 27th Nov., 1902

PROVISIONAL SPECIFICATION.

**“Improved Appliance or Toy for Imparting Motion to Objects such as Toy Soldiers and the like in Imitation of Military and other Movements.”**

I, CHARLES DENTON ABEL, of Birkbeck Bank Chambers, Southampton Buildings, in the County of London, Consulting Engineer and Chartered Patent Agent, do hereby declare the nature of this invention (as communicated to me from abroad by Artur Duffek, of VII Lindengasse No. 37, Vienna, Austria, Engineer,) to be as follows:—

This invention has for its object an appliance or toy by means of which a number of objects such as toy soldiers, men on horseback or the like, can, on moving the toy on a rough surface, be made to turn simultaneously upon their own axes, or upon another axis and also to move in straight lines. The toy thus enables various military exercises to be carried out, such as changing front, marching in single or double file, wheeling and the like, as also marching in straight line in any desired direction, whereby the toy differs advantageously from similar known constructions as with these the figures can only move in certain prescribed directions.

On the accompanying drawing are shewn various arrangements for carrying out the said invention.

Figures 1 and 2 show one arrangement of the appliance or toy respectively in plan and longitudinal section; Figures 3 and 4 shew a plan and section of another arrangement;

Figure 5 shews a different combination of the construction shewn in Figures 3 and 4.

Figures 6 and 7 shew a plan and section of another mode of construction.

The toy is composed of thin bars provided with tongues that first project at right angles from the bars and then extend at an angle of about 45°, the extremities being adapted to carry the figures either directly or by means of suitable attaching devices.

In the arrangement shewn at Figs. 1 and 2 the bars provided with tongues *c* constitute part of a frame *a* on which are small studs *b* serving as handles by which the frame can be held and shifted about. The part of the tongues *c* joining on to the bars is at right angles to the latter, while the end part thereof forms an angle of about 45° with the bars. The bars are arranged parallel to each other and the tongues are also parallel to each other.

At the free ends of the tongues are pins or small bent-up pieces *d* on which are mounted the figures by means of holes formed excentrically to their bases *f*, so that the greater part of such bases rest upon the supporting surface on which the frame *a* is laid, such as a rough table surface.

When the frame is slid upon the said supporting surface, the figures are carried along with it, and in being thus moved they turn upon the pins *d* at each change of direction of the frame, while remaining more or less parallel to each other. At Fig. 1 the dotted rectangles shew those positions of the bases *f* of the figures mounted on the pins *d* which they will assume when the frame

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Appliance or Toy for Imparting Motion to Objects such as Toy Soldiers, &c.

is moved in the direction of the arrow shewn at the side of the respective rectangles.

In order to cause the figures always to stand with the greater part of their bases upon the supporting surface, and to prevent them from falling when they strike against the tongues, the latter are provided with projecting stops *g* and *h* 5 which limit the turning motion of the figures.

Figs. 3, 4 and 5 shew a modified form of the frames in which there is only a single row of the tongues, the frames being capable of being connected together by means of hooks *i*.

In the arrangement shewn at Figs. 6 and 7, the toy consists of two flat bars *n* 10 and *p* and the bars *a*<sup>1</sup> provided with the bent tongues *c*<sup>1</sup> which bars have inclined arms *a*<sup>2</sup>. These arms are pivotally connected to the bar *n* at the point *o* and to the bar *p* at *q*, so that on shifting the bars *n* and *p*, relatively to each other, the projections *a*<sup>2</sup> cause the bars *a*<sup>1</sup> with their tongues *c*<sup>1</sup> to move from the position shewn in full lines in Fig. 6, into the position shewn in dotted lines, 15

At the ends of the tongues *c*<sup>1</sup> are provided crescent shaped plates *k* pivotally connected thereto, and having at their ends pins or bent-up pieces *d*<sup>1</sup> on which can be mounted the bases of the figures by means of excentric holes, as previously described.

In order that the several evolutions and marching movements may be effected 20 by the shifting of the bars *n* and *p* in connection with larger figures, such as horse soldiers, the crescent shaped plates *k* are provided at their middles with pins or projections *d*<sup>2</sup> and also with bent-up pieces *k*<sup>1</sup> which latter are in contact with the sides of the bases *f*<sup>1</sup> mounted on the pins *d*<sup>2</sup>, and thus serve to guide the figures. 25

Dated this 25th day of April 1902.

ABEL & IMRAY,  
Agents for the Applicant.

## COMPLETE SPECIFICATION.

**"Improved Appliance or Toy for Imparting Motion to Objects such as 30  
Toy Soldiers and the like, in Imitation of Military and other  
Movements".**

I, CHARLES DENTON ABEL, of Birkbeck Bank Chambers, Southampton Buildings, in the County of London, Consulting Engineer and Chartered Patent Agent, do hereby declare the nature of this invention (as communicated to me from 35 abroad by Artur Duffek, of VII Lindengasse No. 37, Vienna, Austria, Engineer) and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention has for its object an appliance or toy by means of which a number of objects such as toy soldiers, men on horseback or the like, can, on 40 moving the toy on a rough surface, be made to turn simultaneously upon their own axes, or upon another axis and also to move in straight lines. The toy thus enables various military exercises to be carried out, such as changing front, marching in single or double file, wheeling and the like, as also marching in straight line in any desired direction, whereby the toy differs advantageously 45 from similar known constructions as with these the figures can only move in certain prescribed directions.

On the drawing accompanying my Provisional Specification are shewn various arrangements for carrying out the said invention.

Figs. 1 and 2 shew one arrangement of the appliance or toy respectively in 50 plan and longitudinal section; Figs. 3 and 4 shew a plan and section of

*Appliance or Toy for Imparting Motion to Objects such as Toy Soldiers, &c.*

another arrangement; Fig. 5 shows a different combination of the construction shewn in Figs. 3 and 4.

Figs. 6 and 7 shew a plan and section of another mode of construction.

The toy is composed of thin bars provided with tongues that first project at right angles from the bars and then extend at an angle of about 45°, the extremities being adapted to carry the figures either directly or by means of suitable attaching devices.

In the arrangement shewn at Figs. 1 and 2 the bars provided with tongues *c* constitute part of a frame *a* on which are small studs *b* serving as handles by which the frame can be held and shifted about. The part of the tongues *c* joining on to the bars is at right angles to the latter, while the end part thereof forms an angle of about 45° with the bars. The bars are arranged parallel to each other and the tongues are also parallel to each other.

At the free ends of the tongues are pins or small bent-up pieces *d* on which are mounted the figures by means of holes formed excentrically to their bases *f* so that the greater part of such bases rest upon the supporting surface on which the frame *a* is laid, such as a rough table surface.

When the frame is slid upon the said supporting surface, the figures are carried along with it, and in being thus moved they turn upon the pins *d* at each change of direction of the frame, while remaining more or less parallel to each other. At Fig. 1 the dotted rectangles shew those positions of the bases *f* of the figures mounted on the pins *d* which they will assume when the frame is moved in the direction of the arrow shewn at the side of the respective rectangles.

In order to cause the figures always to stand with the greater part of their bases upon the supporting surface, and to prevent them from falling when they strike against the tongues, the latter are provided with projecting stops *g* and *h* which limit the turning motion of the figures.

Figs. 3, 4 and 5 shew a modified form of the frames in which there is only a single row of the tongues, the frames being capable of being connected together by means of hooks *i*.

In the arrangement shewn at Figs. 6 and 7 the toy consists of two flat bars *n* and *p* and the bars *a*<sup>1</sup> provided with the bent tongues *c*<sup>1</sup> which bars have inclined arms *a*<sup>2</sup>. These arms are pivotally connected to the bar *n* at the point *o* and to the bar *p* at *q*, so that on shifting the bars *n* and *p* relatively to each other, the projections *a*<sup>2</sup> causes the bars *a*<sup>1</sup> with their tongues *c*<sup>1</sup> to move from the position shewn in full lines in Fig. 6 into the position shewn in dotted lines, that is through an angle of 90°.

At the ends of the tongues *c*<sup>1</sup> are provided crescent shaped plates *k* pivotally connected thereto, and having at their ends pins or bent-up pieces *d*<sup>1</sup> on which can be mounted the bases of the figures by means of excentric holes, as previously described.

In order that the several evolutions and marching movements may be effected by the shifting of the bars *n* and *p* in connection with larger figures, such as horse soldiers, the crescent shaped plates *k* are provided at their middles with pins or projections *d*<sup>2</sup> and also with bent-up pieces *k*<sup>1</sup> which latter are in contact with the sides of the bases *f*<sup>1</sup> mounted on the pins *d*<sup>2</sup>, and thus serve to guide the figures.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

1. An appliance or toy by means of which a number of objects such as toy soldiers and the like can be simultaneously turned round and moved forward in a straight line, consisting of flat bars provided with tongues projecting at or about right angles to the bars and having their ends bent at an angle of about 45° such ends being adapted to be pivotally connected with the bases of the

*Appliance or Toy for Imparting Motion to Objects such as Toy Soldiers, &c.*

said objects in such manner that the greater part of such base is in contact with the surface on which the bar rests, substantially as described.

2. In an appliance or toy such as is referred to in the first claim, constructing the bars carrying the tongues *c* so as to form the sides of frames, with or without intermediate bars parallel to such sides, substantially as described. 5

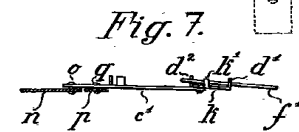
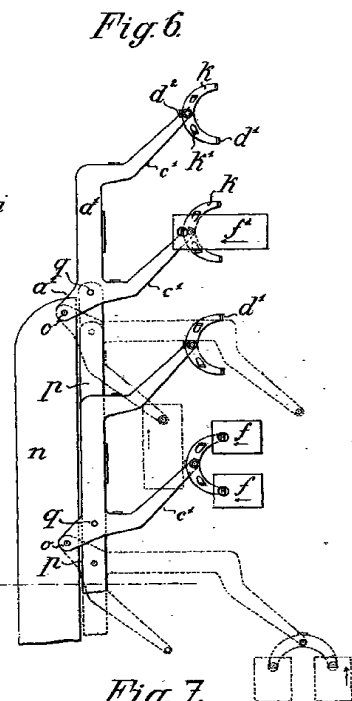
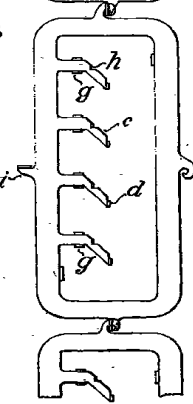
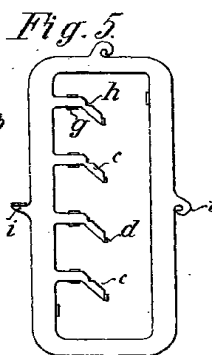
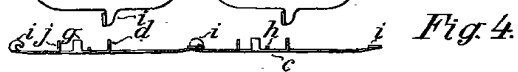
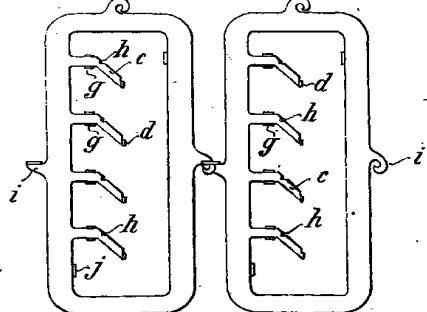
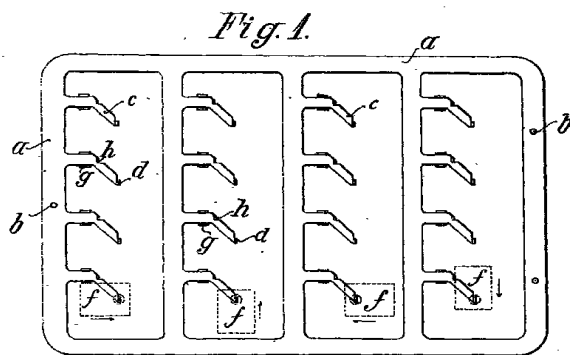
3. In an appliance or toy such as is referred to in the first claim, providing the tongues *c* with upward projecting parts *g* and *h* serving to limit the turning motion of the pivoted objects, and to prevent these from falling over when coming in contact with tongues, substantially as described.

4. In an appliance or toy such as is referred to in the first claim, providing 10 the bars *a*<sup>1</sup> having the parallel tongues *c*<sup>1</sup> with an oblique projection *a*<sup>2</sup> pivotally connected to bars *n* and *p* in such manner that on moving these bars parallel to one another the bars *a*<sup>1</sup> with their tongues *c*<sup>1</sup> will be turned through an angle of 90°, substantially as described.

5. In an appliance or toy such as is referred to in Claim 4, the combination 15 with the tongues *c*<sup>1</sup> of crescent-shaped pieces *k* pivoted at their middle to the ends of the tongues and having at their ends pins or hooks *d*<sup>1</sup> for the attachment of the bases of the objects, substantially as described.

Dated this 19th day of September 1902.

ABEL & IMRAY, 20  
Agents for the Applicant.



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Fig. 1.

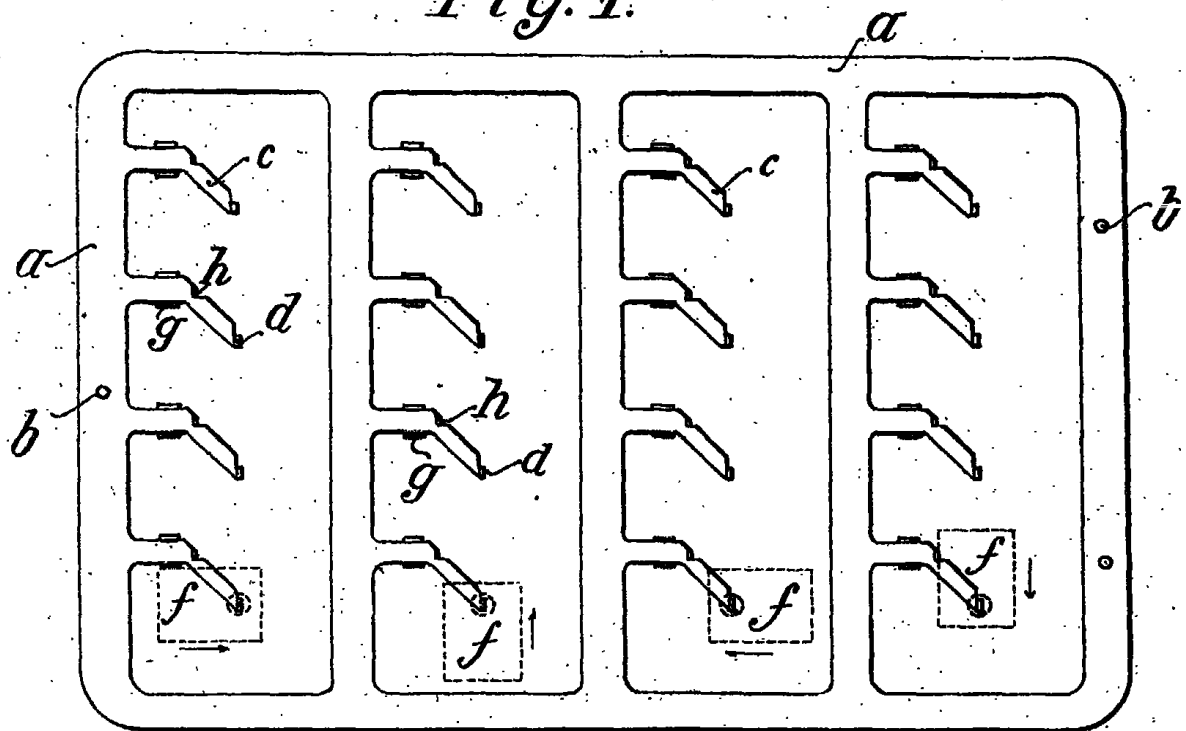


Fig. 2.

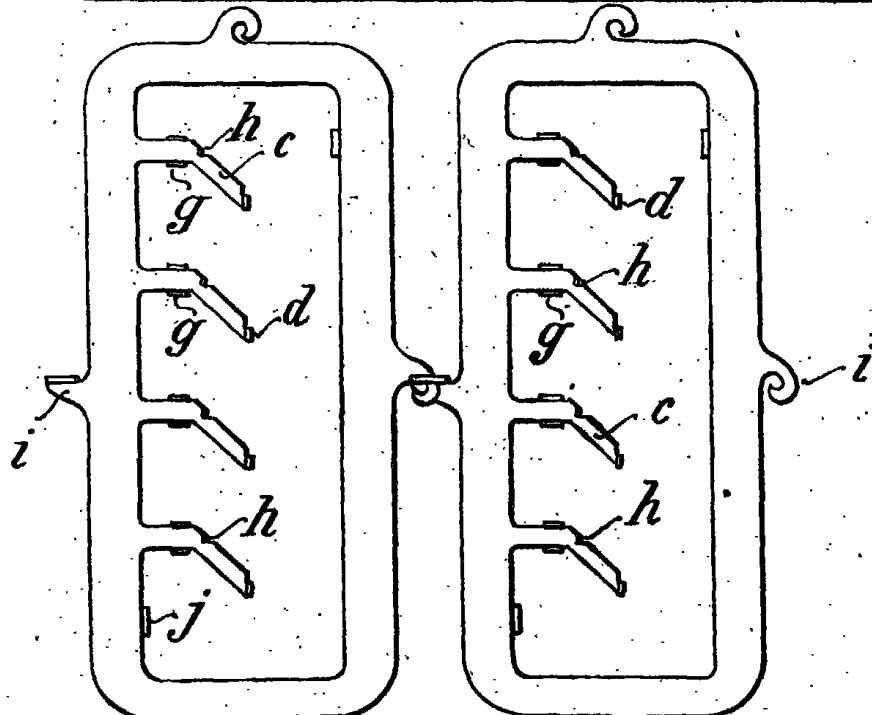


Fig. 3.



Fig. 4.

Fig. 5.

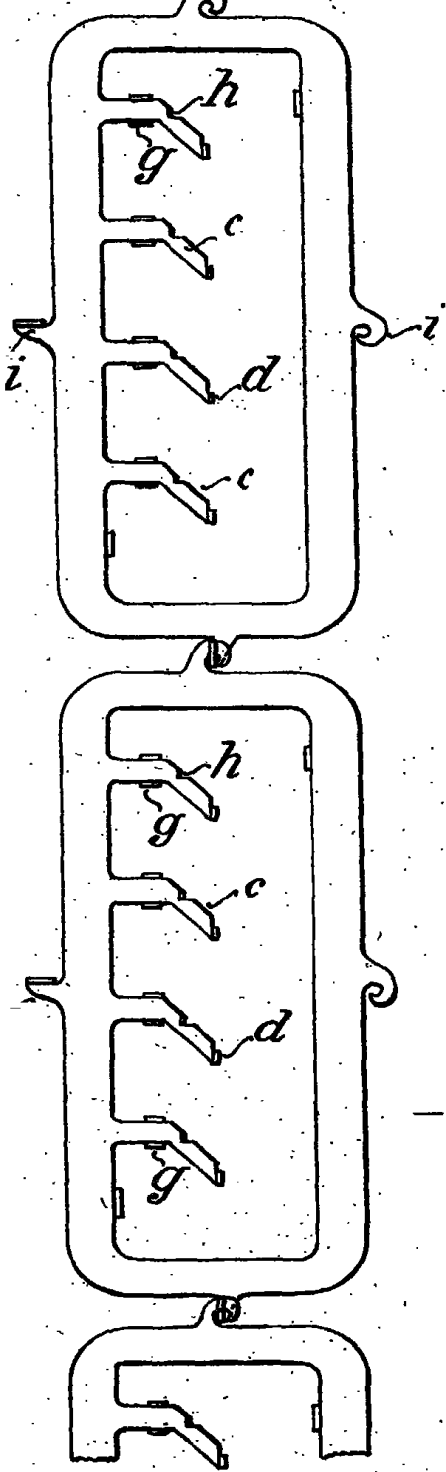


Fig. 6.

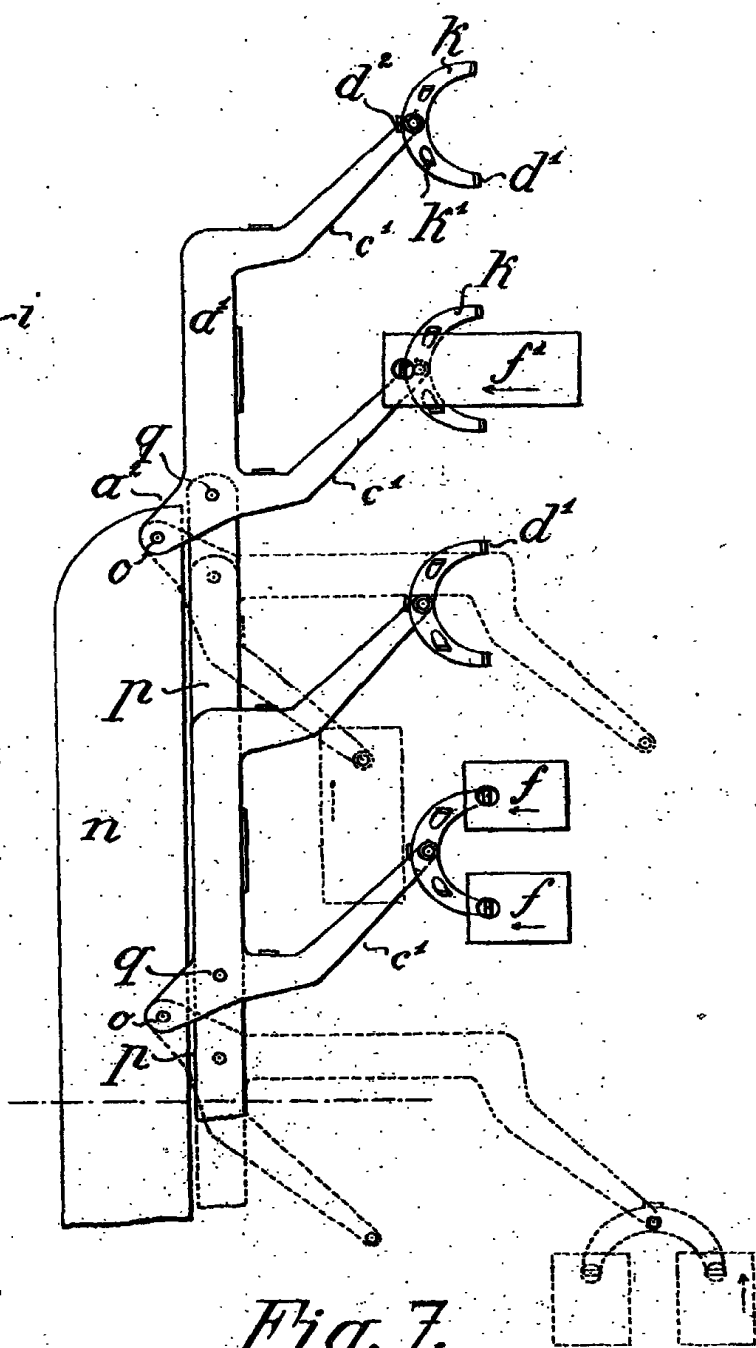
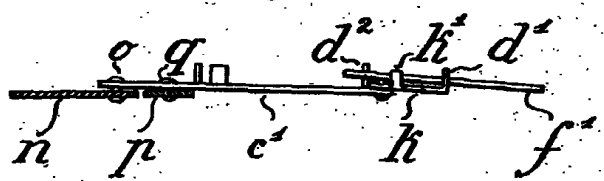


Fig. 7.



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