E. P. ROBERTS.

Toy.

No. 213,451 Patented Mar. 18, 1879.

Fig. III

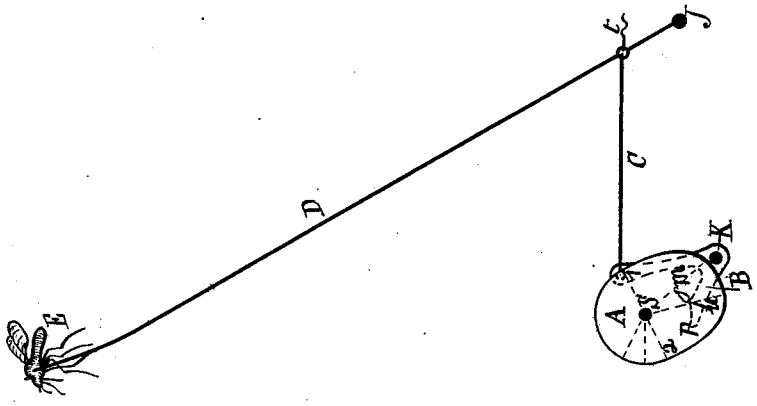


Fig. II

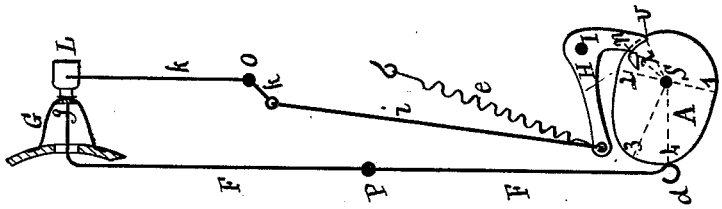
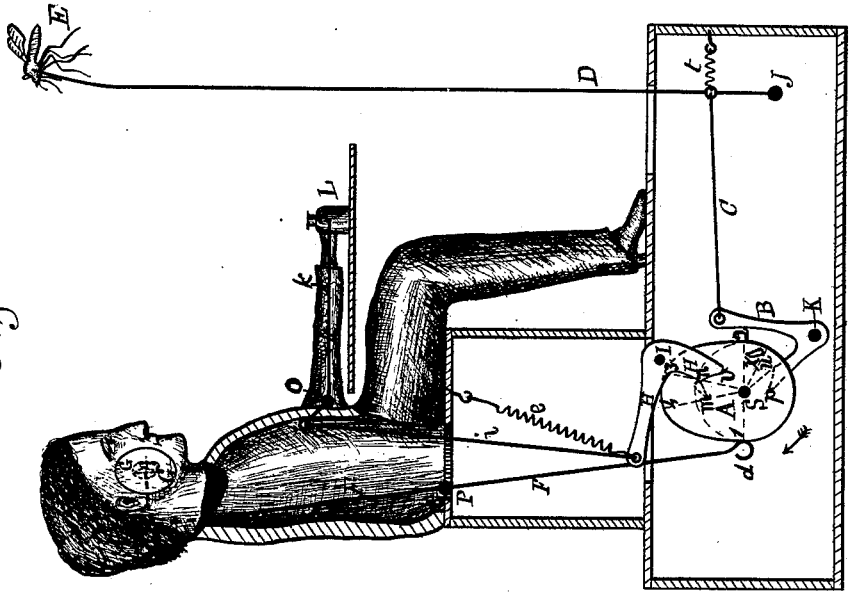


Fig. I



Witnesses.

James W. Hall

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IMPROVEMENT IN TOYS.

Specification forming part of Letters Patent No. **213,451**, dated March 18, 1879; application filed January 10, 1879.

To all whom it may concern:

Be it known that I, EDWARD PARKINSON ROBERTS, of the city of Elizabeth, county of Union, State of New Jersey, have invented a new and useful Improvement in Toys, of which the following is a specification:

My invention consists in the combination of mechanism, substantially as hereinafter described, by which an imitation insect or serpent is caused to approach and recede from a toy figure, a portion of the face or other part of the body of which is elastic, and is distended to give the appearance of a swelling produced by the sting or bite of the insect or serpent.

It further consists in the combination, with the above, of mechanism adapted to raise to the distended portion of the figure, or to its mouth, a medicine-receptacle for the apparent purpose of relieving the swelling, which disappears upon the withdrawal of such medicine-receptacle and upon the distending mechanism receding.

My invention, as illustrated by the drawings, shows the figure of a man seated on a chair and holding in his right hand a bottle, supposed to contain medicine. On the end of a wire is hung an insect. The visible motions are as follows: The insect moves forward and alights on the man's cheek. After staying a short time it returns and the cheek commences to swell. After the cheek is extremely swollen the right hand raises the bottle to the cheek and the swelling subsides.

Figure 1 shows a figure of a man seated on a chair, which is on top of a box containing the operating mechanism. Motion is communicated to the different parts through the shaft S, which may be driven by any suitable means. This shaft carries a cam, A. On the near side of the cam is a pin, *x*, and on the other side is a pin, *m*. The pin *m* acts against one arm of a bell-crank, B, turning on a shaft, K, in the lower part of the box. The other arm pulls a link, C, which moves a lever, D, of the second order, moving on a shaft, J, and carrying at its outer end an insect, E. A spring, *t*, is provided to return the lever D and bell-crank B to their original positions when moved therefrom. The pin *x* acts against one arm of a bell-crank, H, turning on a shaft, I, placed above the cam. The other arm pulls down a link, *i*, which pulls down one end of a lever, *k*, of the first order, turning on a shaft, O, placed in the elbow of the right arm of the figure. The other end of the lever holds a bottle, L, which is thus raised. The cam A acts on one end, *d*, of a lever, F, of the first order, turning on a shaft, P, in the seat of the chair. The other end carries a pad, *g*, which presses against the cheek G of the figure, and, as the cheek is made of india-rubber, or similar material, causes it to expand.

In Fig. 1 is shown the toy as it commences its cycle. The cam A is shown moving in the same direction as the hands of a watch. No outside motion is produced until the pin *m* on the cam A reaches the portion *n* of the bell-crank B, when it shoves it into the position shown in Fig. 3, and, through the link C, pulls over the lever D, carrying the insect E into the position shown in the same figure, and touching the cheek of the man. The pin *m* then slides along the portion of the edge *n* to *p* of the bell-crank B, which, being part of a circle struck from the center of the shaft S, when the bell-crank B is in the position shown in Fig. 3, keeps the insect against the cheek. When the pin leaves the bell-crank the spring *t* pulls the lever and bell-crank into their original positions. The pin *m* is made with a slanting back, so that the insect may not be jerked back too suddenly.

By the time that the insect E leaves the cheek the cam A has turned so that the point 2 has reached the end *d* of the lever F, and the radially-increasing portion 2 3 of the cam shoves the lever into the position shown in Fig. 2. The cheek G of the figure, being formed of flexible material, is pressed out, as shown in the same figure. The pad *g* on the end of the lever distributes the pressure on the cheek and gives it a rounded form. The part 3 4 of the cam, being an arc struck from the center of motion, keeps the cheek distended for a short time until the cam reaches the position shown in Fig. 2, and then, as the radially-decreasing portion 4 1 moves past *d*, the lever F resumes its original position.

Fig. 1 shows the head in profile; but, in

practice, the head is turned so as to have the cheek G at right angles to the direction of motion of the pad *g*.

The bottle motion is as follows: When the point 3 reaches the lever F, the pin *x* on the cam A acts against the edge *n* of the bell-crank H, and shoves it into the position shown in Fig. 2, and, by pulling down the link *i*, raises the longer arm of the lever *k*, so that the bottle L presses against the distended cheek, and, as the portion of the edge *n* to *v* of the bell-crank is an arc of a circle with its center in the center of the shaft S, the bottle is held stationary for a short time, and when the pin *x* leaves the bell-crank the bottle drops of its own weight, or, if necessary, is assisted by a spring, *e*. As soon as the bottle touches the cheek the swelling diminishes and soon subsides, as previously explained.

That part of my invention relating to the automatic swelling may be applied to other toy animals than the toy man and other parts of the toy figure than the cheek, in which cases the bottle of medicine may be applied by other means than the fore-arm of the animal, and may also be applied to the mouth instead of to the swelling.

I claim—

1. The combination, with a toy figure, a portion of the face or other part of the body of which is elastic, of mechanism, substantially as described, to distend such elastic portion in order to produce in such figure the appearance of a local swelling in such elastic part, all constructed and adapted to be operated substantially as described.

2. The combination, with a toy figure, a portion of which is elastic, and mechanism, substantially as described, to distend such elastic portion, of an imitation insect and a mechanism, substantially as described, to cause such insect to approach and recede from the elastic portion of the figure, substantially as described.

3. The combination, with a toy figure, a portion of which is elastic, and mechanism, substantially as described, to distend such elastic portion, and an imitation insect and mechanism, substantially as described, to cause such insect to approach and recede from the elastic portion of the figure, of a medicine-receptacle and mechanism, substantially as described, to cause such receptacle to be applied to and withdrawn from the elastic portion or mouth, all substantially as described, and for the purpose set forth.

EDWARD P. ROBERTS.

Witnesses:

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