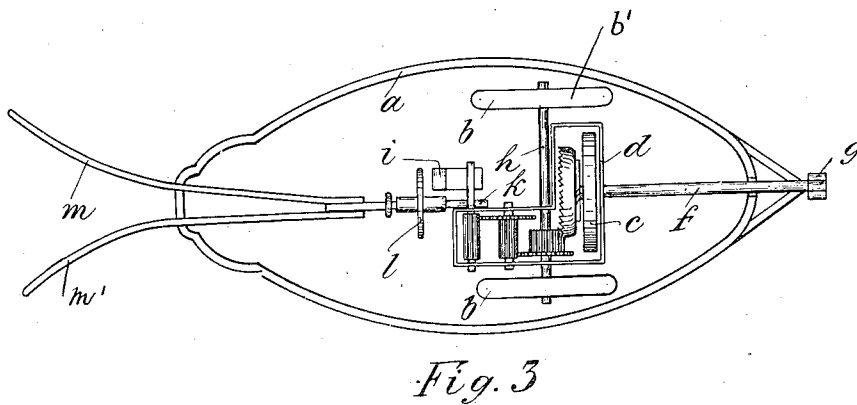
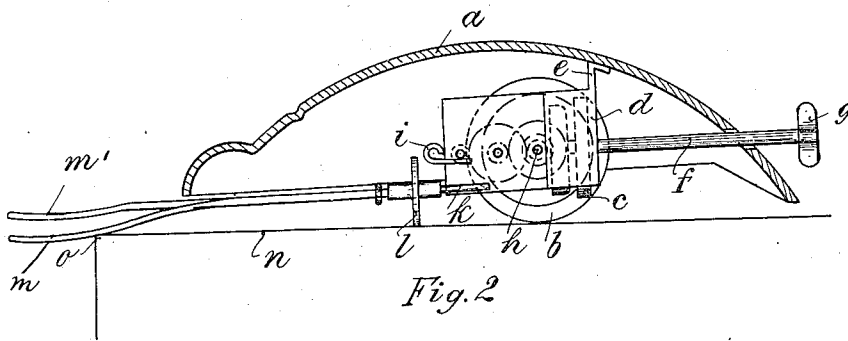
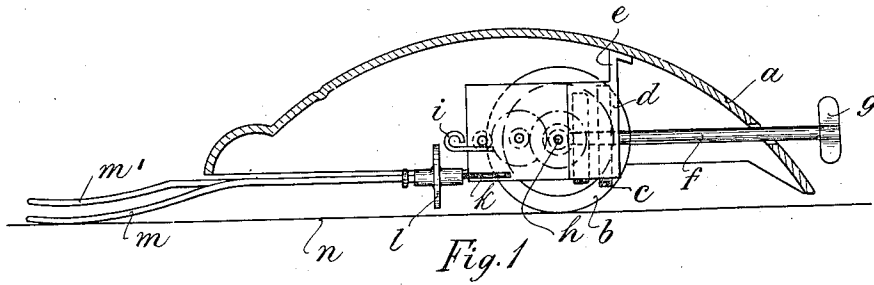


A. WEIGEL.  
MOVING TOY.  
APPLICATION FILED MAR. 20, 1911.

1,017,066.

Patented Feb. 13, 1912.



Witnesses:  
Max Schneider  
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# UNITED STATES PATENT OFFICE.

ADOLF WEIGEL, OF NUREMBERG, GERMANY.

## MOVING TOY.

1,017,066.

Specification of Letters Patent.

Patented Feb. 13, 1912.

Application filed March 20, 1911. Serial No. 615,779.

*To all whom it may concern:*

Be it known that I, ADOLF WEIGEL, a citizen of Germany, residing at Nuremberg, in the Kingdom of Bavaria, Germany, have invented new and useful Improvements in Moving Toys, of which the following is a specification.

My present invention relates to toys, and more particularly to that class which entertain through their movement upon an elevated plane surface, such as a table, the device being provided with automatic propelling means, such as clock-work.

The objects of my invention are to provide a device which will automatically turn away from the margin of the elevated plane, when such is reached during its travel, the device continuing its movement until rendered inactive.

It is to be understood that this invention is applicable to numerous simulated articles, such as vehicles or animals, and by way of example the invention is herein described and illustrated as applied to a beetle simulating body.

In the drawings:—Figure 1 is a central vertical section through the body simulating portion of a device embodying my invention, and disclosing the operating mechanism in elevation, the device being illustrated as located wholly within the margins of the elevated surface upon which it is to operate. Fig. 2 is a view similar to Fig. 1, but showing the device as having approached a margin of the elevated surface upon which it operates, whereby mechanism is thrown into action to direct the device away from such margin. Fig. 3 is a bottom plan view of the device.

Similar characters refer to similar parts throughout the views.

A beetle simulating body, which forms a concavo-convex shell, is designated by *a* and within such shell is located propelling mechanism *c*, such as clock work, carried by a frame *d*, which latter is secured to the body *a*, as at *e*. Such propelling mechanism includes a stem *f*, provided with a handle *g*, for winding the same; a main drive shaft *h*, upon which is mounted supporting wheels *b* and *b'*, the former being fixed to the shaft *h* for driving purposes, and the latter, loosely mounted thereon. A spring friction governor *i* may coact with one of the spindles of the propelling mechanism to regulate the same, or a governor of any suitable de-

sign may be used in connection with the mechanism to regulate the speed thereof without detracting from the spirit of my invention.

The propelling mechanism is disposed to normally drive the device in a forward direction and to facilitate such movement, a guide device *m*, which, in the device herein disclosed, simulates a feeler, is provided projecting from the forward end and which contacts with the surface *n* upon which the device operates. By reference to Figs. 1 and 3, it is obvious that, when the device is wholly upon a flat surface, it is supported by the wheels *b*, *b'* and feeler *m* in contact with such surface.

Within the casing *a*, and intermediate the drive wheel *b* and guide device *m* is a pilot wheel *l* with its axis of rotation intersecting the axis of the driving shaft *h*, at one side of the wheel *b*. This pilot wheel, as shown in Fig. 1, is normally out of contact with the surface *n* upon which the device operates, being so held by the guide device *m* when it is wholly upon the plane surface, however, when the device has approached the margin *o* of the elevated surface *n*, the guide device *m*, by running off the surface *n*, permits this pilot wheel to contact with the surface *n* and through the wheel *b*, quickly turns the device away from such margin, the guide device *m* again resuming its normal position, bearing on the surface *n* and through which the device is guided forward the pilot having again been raised from the surface *n*.

In the device disclosed, a false feeler *m'* may be provided for rendering the device symmetrical in appearance and simulating the other feeler of the beetle.

The automatic turning of the device from the margin of an elevated surface will take place whenever such is encountered and throughout the activity of the propelling mechanism.

I claim:—

1. In a moving toy, adapted for operation upon an elevated surface, the combination of propelling mechanism therefor, and means for turning said toy from a margin of the elevated surface upon the toy approaching the same.

2. In a moving toy, adapted for operation upon an elevated surface, the combination with a body simulating portion, of mechanism for propelling said body over the sur-

face, a device disposed forwardly of said body portion for guiding it in a substantially forward direction upon the surface, and a guide means for coaction with said  
5 propelling mechanism for turning the body portion upon its approaching a margin of said surface, and actionable upon movement of said guide device from the elevated surface.

10 3. In a moving toy, adapted for operation upon an elevated surface, the combination with a body simulating portion, of mechanism for propelling said body portion over the surface, a feeler disposed forwardly of  
15 said body portion for guiding it in a substantially forward direction upon the surface, and a pilot wheel for coaction with said propelling mechanism for turning the body portion upon its approaching a margin of said surface, and actionable upon  
20 movement of said feeler from the elevated surface.

4. In a moving toy, adapted for operation upon an elevated surface, the combination  
25 with a body simulating portion, of propelling mechanism provided with a drive wheel and an idler disposed at either side of the axis of said body portion, a device disposed forwardly of said body portion  
30 for guiding it in a substantially forward direction, and a pilot wheel disposed intermediate said propelling mechanism and

guiding device, and disposed with its plane of rotation cross-wise the direction of forward travel of said body portion for co- 35 action with said propelling mechanism to turn the body portion upon its approaching a margin of said surface and actionable upon movement of said guide device from the elevated surface. 40

5. In a moving toy, adapted for operation upon an elevated surface, the combination with a body simulating portion, of propelling mechanism provided with a drive wheel and idler disposed at either side of the axis  
45 of said body portion, a feeler disposed forwardly of said body portion for guiding it in a substantially forward direction, and a pilot wheel disposed intermediate to the propelling mechanism and feeler and disposed with its plane of rotation cross-wise  
50 the direction of forward travel of said body portion, for coaction with said propelling mechanism to turn the body portion upon its approaching a margin of said surface and actionable upon movement of said  
55 feeler from the elevated surface.

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

ADOLF WEIGEL.

Witnesses:

MAX SCHNEIDER,  
RALPH W. DOX.