

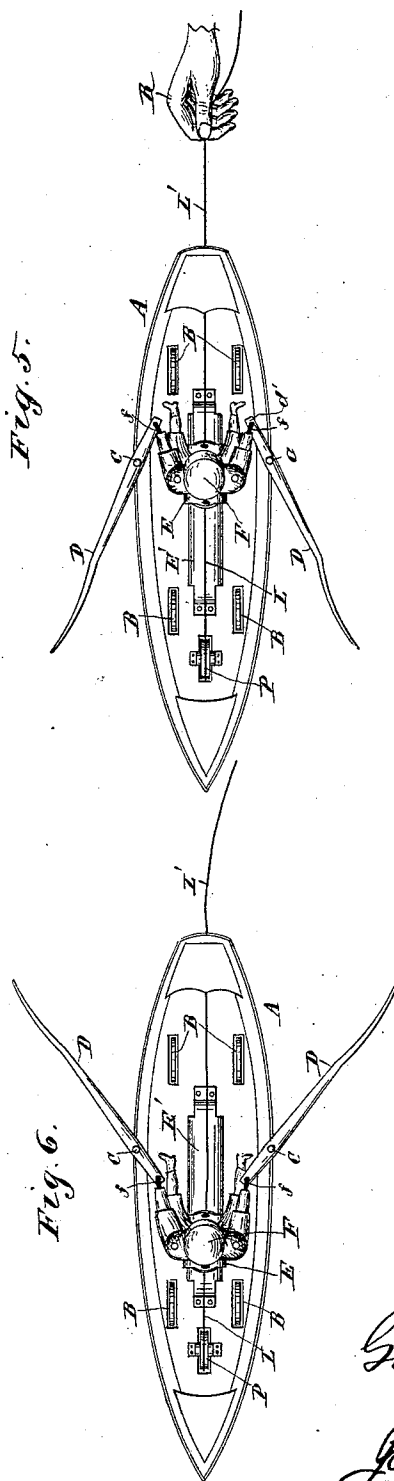
(No Model.)

2 Sheets—Sheet 2.

G. A. GOODSON.
TOY BOAT.

No. 472,291.

Patented Apr. 5, 1892.



Witnesses
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UNITED STATES PATENT OFFICE.

GEORGE A. GOODSON, OF MINNEAPOLIS, MINNESOTA.

TOY BOAT.

SPECIFICATION forming part of Letters Patent No. 472,291, dated April 5, 1892.

Application filed April 6, 1891. Serial No. 388,063. (No model.)

To all whom it may concern:

Be it known that I, GEORGE A. GOODSON, a citizen of the Dominion of Canada, residing at Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Toy Boats; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has for its object to provide an attractive and amusing toy. To this end in a boat-like body equipped with oars I place the figure of an oarsman and a propelling device adapted to impart to the oars motion similar to the action of rowing. Preferably I mount the boat-like body on wheels, the oarsman on a sliding seat, pivotally connect the arms of a figure to its body and the handles of the oar, and construct the propelling device of such form that it may be operated by a connection extending to the exterior of the boat within reach of an operator, the relative arrangement of the different parts being such as to give a perfect imitation of an oarsman propelling a sliding-seat boat. From the flexible connection the child or other operator may start the boat from any given point and propel the same away from him by a series of strokes to an indefinite length by alternately pulling and slacking the flexible connection.

My preferred construction is illustrated in the accompanying drawings, wherein, like letters referring to like parts throughout—

Figure 1 is a side elevation of the toy, some parts being broken away, with the oarsman in position to begin his stroke. Fig. 2 is a longitudinal vertical section with the oarsman in position at the end of the stroke. Fig. 3 is a detail in cross-section on the line X X' of Fig. 2. Fig. 4 is a detail of the oar-lock and oar, and Figs. 5 and 6 are plan views illustrative of the action of the toy with reference to the position of the operator.

A represents the body of a miniature boat. B are wheels supporting the same.

C are the oar-locks in the form of vertical pivots, provided with oar stops or rests C', and D are the oars, each of which is provided with an inclined socket *d* for engagement with the pivot-post C. This construc-

tion permits the oars to make their sweep at a uniform level.

E is the sliding seat, mounted on a runway E' within the boat.

F is the figure of an oarsman mounted on the seat E and grasping the handles of the oars. The arms are pivotally connected to the body of the figure at the shoulder and are provided with fingers *f*, working in sockets *d'* in the handles of the oars. These pivotal connections permit the necessary swinging motion to the arms of the figure to enable it to follow the motion of the oars.

G and H are a pair of pivoted detents or pawl-like brads carried by the boat and projecting from the bottom of the same. Of these detents G is mounted so as to have a sliding motion from and toward the other detent H, which is so mounted that it cannot slide. To effect the sliding movement of the detent G, it is carried by a slide G', working on guides *g*, secured to the underside of the boat. Both detents are so mounted that their pivotal movement is limited in one direction—namely, neither of them can turn past the vertical line toward the forward end of the boat, but may turn freely in the other direction approximately to the horizontal—which construction permits them to engage with the floor or other support traversed by the toy against strain opposite to the line of travel and allows them to slide freely over the floor when released.

K is a spring connecting the slide G' with the body of the boat, preferably at some point near the pivoted detent H.

L is a flexible connection attached at the front end of the slide G', extending over a guide P, located on the front part of the boat and attached at its other end to the rear of the sliding seat E, and L' is a flexible connection attached to the front of the seat and extending through an eye *h*, carried by the detent H, and thence through a vertical slot *a* in the rear end of the boat. This flexible connection is preferably an ordinary cord and may be of any suitable length, according to the distance it is desired to propel the boat away from the operator. The spring K is conveniently made of a strip of rubber.

Stops *e* are provided on the runway E' to

limit the movement and prevent the displacement of the sliding seat E. A cam Q is located on the body of the boat in position to strike the pivoted detent G as the boat moves forward under the action of the spring and release the same from its engagement with the floor.

The operation is as follows: The operator holding the cord L', as shown by the position of the hand R in Fig. 4, pulls on the same on a straight line or slightly downward toward the floor, causing the detent H to engage therewith and constitute a base of resistance to the spring K. A continued pull will draw the seat backward and set the spring under tension and cause the sliding detent to move to its forward limit and drop into its vertical position. On then releasing the string the sliding detent becomes the base of resistance to the action of the spring and the boat is thrown forward one stroke of the oars, the figure retreating therewith into the position shown in Fig. 2. The first strain applied to the string gives to the figure and the oars the motion of recovery, putting the figure into position for the stroke of the oars, and the impulse given to the boat by the spring imparts to the oarsman and oars the action of the stroke. To the eye the oarsman seems to be propelling the boat. The action is very life-like and in perfect imitation in all respects to the propulsion of a boat by an oarsman in a boat having a sliding seat. After the boat has been propelled in the manner described to the end of the string or other limit it may be withdrawn or retracted to its original or starting position near the operator by simply lifting the string and drawing on the same at a slight angle above the horizontal level, which will lift the detent H, so that it will not engage with the floor. The boat is thus entirely under control of the operator, to be manipulated as he may see fit without shifting his position.

It will of course be understood that a more or less amusing toy having the appearance of a boat moving under the action of an oarsman might be made without all the refinements shown in my preferred construction, hereinbefore described. The figure, for example, might be stationary, in imitation of an oarsman in a boat having a stationary seat, and the arms of the figure and the oars could still be so constructed as to imitate the rowing action. The boat-like body, instead of being mounted on the wheels, as shown, might be mounted on runners, and the other parts being as shown and described, the toy would work equally well, so far as the imitative features are concerned, but would be much more logy. Other forms of propelling devices might be substituted for the spring and detents, so long as the same are controllable from the exterior of the boat, or the propelling device might be omitted entirely, so far as the boat-body is concerned, and a rowing motion be given to the figure and oars from a crank-axle on the wheels

when the boat is pulled forward by hand. All of these substitute constructions, however, would be comparatively unattractive and deficient in life-like action. It will also be understood that the propelling device herein shown as applied to a boat might equally well be applied to propel any other object with an intermittent motion.

What I claim, and desire to secure by Letters Patent of the United States, is as follows:

1. The combination, with a movable body, of a pair of detents carried thereby, one of which is mounted to slide from and toward the other, a spring connecting the sliding detent with the body, and a connection from the sliding detent extending to the exterior of the body, the relative arrangement of the parts being such that the detents may be made to engage in succession with the floor or other support traversed thereby to shift the base of resistance of the spring from one detent to the other, whereby the spring may be made to impel the body, substantially as described.

2. The combination, with a movable body, of a pair of pivoted detents carried thereby, one of which is mounted to slide from and toward the other, a spring connecting the sliding detent with said body, a connection from the sliding detent to the exterior of the body for moving said detent and setting the spring, and stops for limiting the movement of the detents in one direction, substantially as and for the purpose set forth.

3. The combination, with a movable body, of a sliding pivoted detent and a non-sliding pivoted detent, both carried by the said body, a spring connecting the sliding detent with the body, and a flexible connection passing from the sliding detent over a suitable guide and thence to the exterior of the body for operating the detents and spring to propel the body, substantially as described.

4. The combination, with a movable body, of a sliding pivoted detent and a non-sliding pivoted detent, both carried by the said body, a spring connecting the sliding detent with the body, a flexible connection passing from the sliding detent over a guide on the body and thence through an eye on the non-sliding detent to the exterior of the body, whereby the body may be both propelled and retracted at will.

5. A toy comprising the boat-like body, the sliding seat, and sliding detent moving parallel with each other in reverse order, the flexible connection from the seat to the detent over a suitable guide, the non-sliding pivoted detent on the boat, the flexible connection from the seat to the exterior of the boat, and the spring connecting the sliding detent with the boat-body, substantially as and for the purpose set forth.

6. The combination, with the boat-like body, of the sliding pivoted detent, the non-sliding pivoted detent, the spring connecting the sliding detent with the boat-body, and the flexible connection passing first forward from the

sliding detent over a guide, then back through an eye on the non-sliding detent, and thence through a vertical slot at the rear of the boat, whereby the line of strain may be shifted to different levels to propel or retract the boat at will.

7. The combination, with the boat-body A, provided with the slot *a*, the sliding seat E, the slide G', carrying the pivoted detent G, the pivoted non-sliding detent H, provided with the eye *h*, the guide P, the cam Q, the spring K, and the flexible connections L L', arranged and operating substantially as described.

8. The combination, with a movable body provided with a non-sliding detent, of a detent-carrying slide mounted on the body, a

pivoted detent on the slide engageable with the floor, a spring connecting said slide to the body, adapted to be set by the movement of the slide to impel the body against the sliding detent as a base of resistance, a cam on the body adapted to trip the said detent, and a flexible connection extending from the sliding detent to the exterior of the body for moving the sliding detent and setting the spring against the resistance of the non-sliding detent.

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

GEORGE A. GOODSON.

Witnesses:

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