

G. W. BEEBE.

DEVICE FOR LAUNCHING LIFE OR OTHER BOATS.

No. 586,927.

Patented July 20, 1897.

Fig. 1.

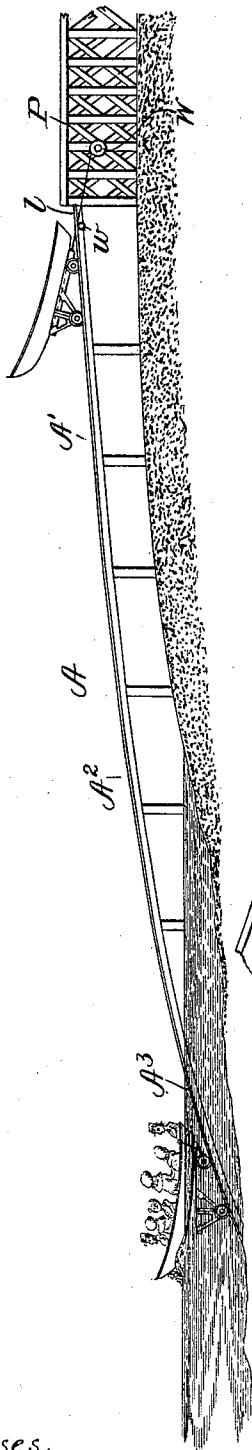


Fig. 2.

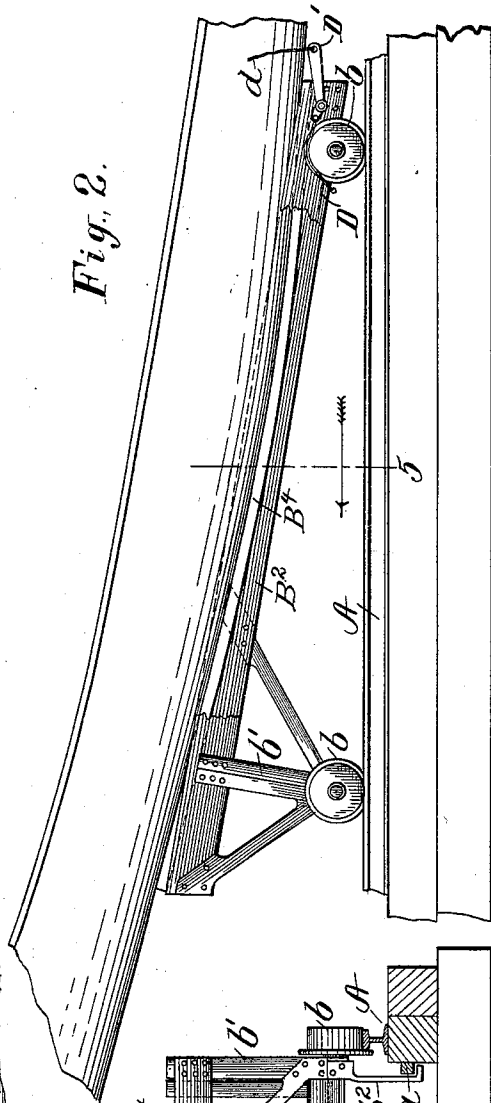
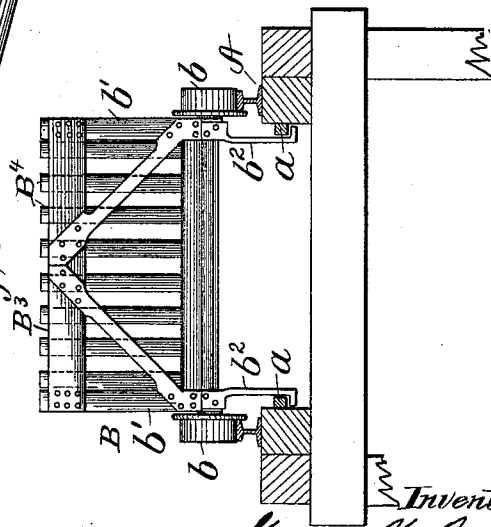


Fig. 3.



Witnesses.
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Philip Harris.

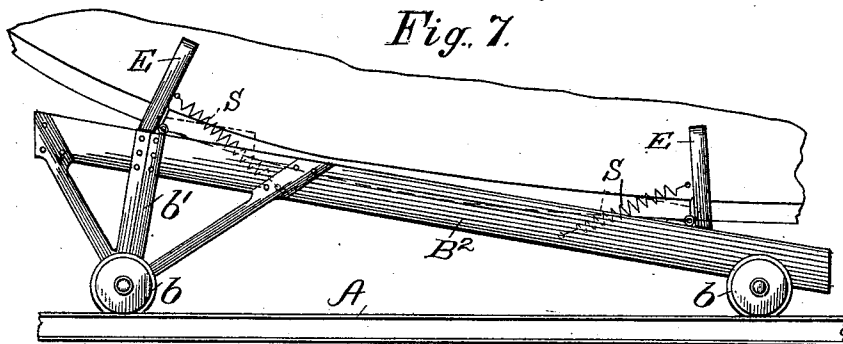
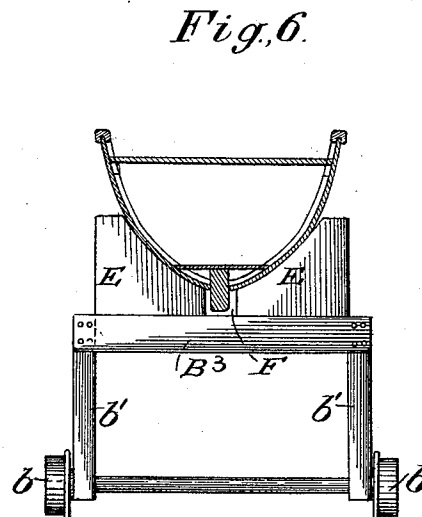
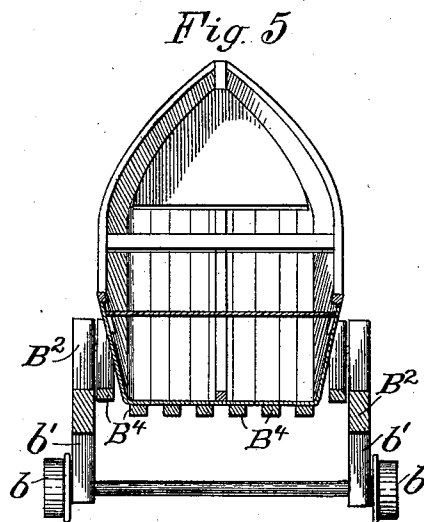
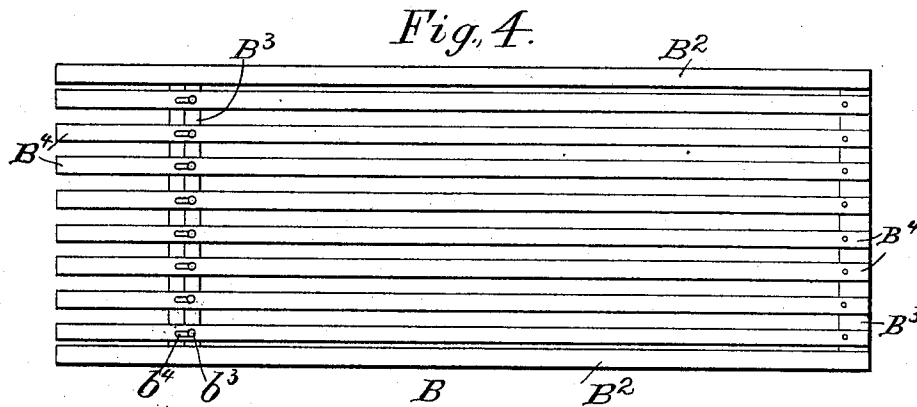
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his Attorney.

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UNITED STATES PATENT OFFICE.

GEORGE W. BEEBE, OF BROOKLYN, NEW YORK.

DEVICE FOR LAUNCHING LIFE OR OTHER BOATS.

SPECIFICATION forming part of Letters Patent No. 586,927, dated July 20, 1897.

Application filed March 22, 1897. Serial No. 628,614. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. BEEBE, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Devices for Launching Life or Other 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 relates to the launching of life and other boats.

At the time when there is the most urgent need for a life-boat the sea is usually running so high that it is a most difficult and dangerous task to launch the boat from the shore, launching often, in fact, being impossible with the appliances now in use.

My invention has for its object the provision of means whereby life and other boats may be launched safely and with ease even in rough and tempestuous seas.

To this end my invention broadly consists in a way or track of increasing inclination from the shore to the water and a launching car or truck so constructed with relation to the track that at the instant the boat strikes the water at the lower end of the track it will be on a level keel, or with the bow slightly elevated, and at a point sufficiently distant from shore to be beyond the more violent surf or breakers.

My invention further consists in certain details of construction of the way or track and the launching-car.

In the accompanying drawings, forming a part of this specification, I have illustrated one embodiment of my invention, in which drawings—

Figure 1 is a view in side elevation of my invention. Fig. 2 is a side elevation of my improved launching-car with a boat resting thereon, parts being broken away. Fig. 3 is a front elevation of the launching-car. Fig. 4 is a plan view of the platform of the car. Fig. 5 is a sectional elevation of the car and boat on the dotted line 5 of Fig. 2, looking in the direction of the arrow. Figs. 6 and 7 are front and side elevations, respectively, showing a modified form of restraining device.

Referring to the drawings, in which the

same reference-letters refer to the same parts throughout all the views, A represents a track or way extending from a pier P out into the water. The outer end of this pier may be upon the beach, as shown in the drawings, or it may extend some distance out into the water, as circumstances may require. The first or upper portion A' of the track or way slopes gently from the pier P toward the water, preferably in a straight line. The second or middle portion A² is struck on a curve of great radius, but so that the downward slope toward the water is somewhat greater than that of the part A', while the third or lower portion A³ is struck on a curve of less radius than the middle portion and so that the downward incline will be considerably increased.

Of course there are no distinct lines of demarcation between the three parts or sections A', A², and A³, the lines of one running gradually into the other, so as to produce a smooth and even way of constant inclination at first and gradually increasing inclination thereafter. By this construction I am enabled to obtain a way with the necessary pitch or inclination at its lower portion to give the launching-car that quickness of movement necessary to enable it to be so controlled as to launch the boat at the most opportune moment without building a pier to such an undesirable height as would be necessary were the inclination the same at the upper as at the lower end. Traveling upon this way A is a peculiarly-constructed car B. This car is supported upon wheels *b*, resting upon the track A and connected by suitable axles. The rear end of the platform or bottom B' of the car rests down closely upon the rear axle, while the front end is carried upon standards *b'*, supported by the front axle, which standards raise the front considerably above the rear end, so that the platform when the car stands on a level has quite a slant from the front to the rear, as is plainly shown in Fig. 2. The angle of this slant must be determined by the inclination of the lower part A³ of the track or way, care being taken that when the car is in the lowermost position, as shown to the left in Fig. 1, the platform shall be on a level or slanting slightly downward from front to rear. The platform B' is formed of the side bars B², suit-

ably united to cross-bars B^3 , and the slats or bars B^4 , of suitable elastic material, preferably wood, extending longitudinally of the platform and attached to the cross-bars B^3 .

5 I prefer to attach these slats to the cross-bars in the manner shown in Fig. 4—that is, with the rear ends firmly united to the cross-bar and the front ends connected to the bar by means of a bolt b^3 , extending through an ob-
10 long slot b^4 . Projecting downward from the axles are bars b^2 , Fig. 3, whose lower ends are bent at right angles, forming clips which engage the bars a , attached to the way A , so as to prevent the car from tipping or being
15 washed from the track. The lower ends of these clips may bear antifriction-rollers, if desired.

I provide at the rear end of the car a brake-strap D , Fig. 2, operated by a weighted lever
20 D' through a cord or line d . By pulling on the line the occupant of the boat can put on the brake, and upon cessation of the pull on the line the weighted lever throws off the brake. Connected to the pier is a windlass
25 W , from which a line l passes over suitable idlers w to the car.

The operation of my improved launching device is as follows: Assuming that the boat to be launched is flat-bottomed and that the
30 car is in the position at the top of the inclined way, as shown at the right of Fig. 1, the boat is placed upon the car, the weight of the boat, together with that of its occupants, acting to depress the slats B^4 , upon which the boat rests,
35 (see Fig. 5,) so that it is firmly held in place upon the car. All being in readiness, the brake D is released and the windlass W allowed to run free. The car and boat will move slowly over the gentle incline A' , more quickly
40 at A^2 , and at A^3 will move with an accelerated movement. Owing to the relation between the slant of the platform of the car and the slant of the portion A^3 of the track or way A it will be seen that the boat strikes the water
45 evenly or with her bow but slightly elevated. The water rising through the slatted bottom of the platform buoys the boat up, the slats, owing to their elasticity, return to their normal position, and the boat glides freely from
50 the car without obstruction.

Should the skilled surferman who controls the movement of the car observe that the boat is liable to strike the water just as a wave breaks at the foot of the track or way, he applies the
55 brake when the car is on the part A^2 of the track and, watching his opportunity, releases the car at the proper instant to have the boat strike the water at the most opportune moment. The boat having been launched, the
60 windlass is employed to draw the car back to the pier.

Boats having rounded bottoms and provided with a keel may be launched from the platform B' without other restraining devices
65 than the elastic slats B^4 , but I sometimes use the modification shown in Figs. 6 and 7, in which $E E$ are chocks, suitably shaped to con-

form to the outline of the boat and so hinged to the frame of the platform as to leave a space F between them for the keel of the boat. 70
Preferably these chocks are slightly inclined away from the ends of the platform when in their elevated position and are connected to springs S , the other end of the springs being
75 attached to the platform. When the boat strikes the water and is raised slightly from its seat in the chocks E , the springs S contract and cause the chocks E to fold down on the platform B' , as shown in dotted lines in Fig. 7, thus permitting the boat to glide unob-
80 structed into the water.

I contemplate using my improved launching device herein described not only for the purpose of launching life-boats in time of necessity, but also as a kind of water tobog- 85
gan-slide or marine roller-coaster at seaside resorts.

While I have shown my launching-car mounted on wheels and traveling on rails of a track, it will of course be apparent that the
90 wheels might be dispensed with and the car allowed to slide upon the ways, and I would have it understood that I regard such or equivalent constructions as coming within the scope of my invention. 95

Having described my invention, what I claim is—

1. A device for launching life and other boats, comprising a track or way of increasing inclination from its upper to its lower por- 100
tion, and a launching-car on said track or way having supports which hold the boat on an approximately level keel when the car is at the point of greatest inclination on the track or way, substantially as described. 105

2. A launching device for life and other boats, comprising a track or way having an increasing inclination from its upper or land portion to its lower or water portion, and a launching-car on said track or way having 110
supports which hold the boat on an approximately level keel only when the car is at the point of greatest inclination on the track or way, substantially as described.

3. A device for launching life or other 115
boats, comprising a track or way of increasing inclination from its upper to its lower portion, and a launching-car on said track or way having a platform supporting the boat approximately level when the car is at the point 120
of greatest inclination on the track or way, substantially as described.

4. A marine railway having an upper or land portion inclined down toward the water in a straight line, the same merging into a 125
lower or water portion which is inclined toward the water on a curve of constantly decreasing radius, substantially as described.

5. A launching-car, in combination with restraining means holding the boat firmly seated 130
on the car in the act of launching, and devices automatically releasing the boat only when the same strikes the water, substantially as described.

6. A launching-car having its platform composed of longitudinally-placed yielding or flexible slats, substantially as described.

5 7. A launching-car, having a platform of longitudinally-placed, flexible slats which platform is inclined downward from front to rear when the car is on a level track, a brake device, and suitable clips for engaging a

flange on a track or way to prevent tipping of the car, substantially as described. 10

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

GEORGE W. BEEBE.

Witnesses:

CHAS. FRIEDENBERG,
FRANKLIN BEEBE.