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H. DUTRIEU.

CONSTRUCTION OF SWITCHBACK ROADWAYS.

APPLICATION FILED AUG. 19, 1903.

Fig. 1.

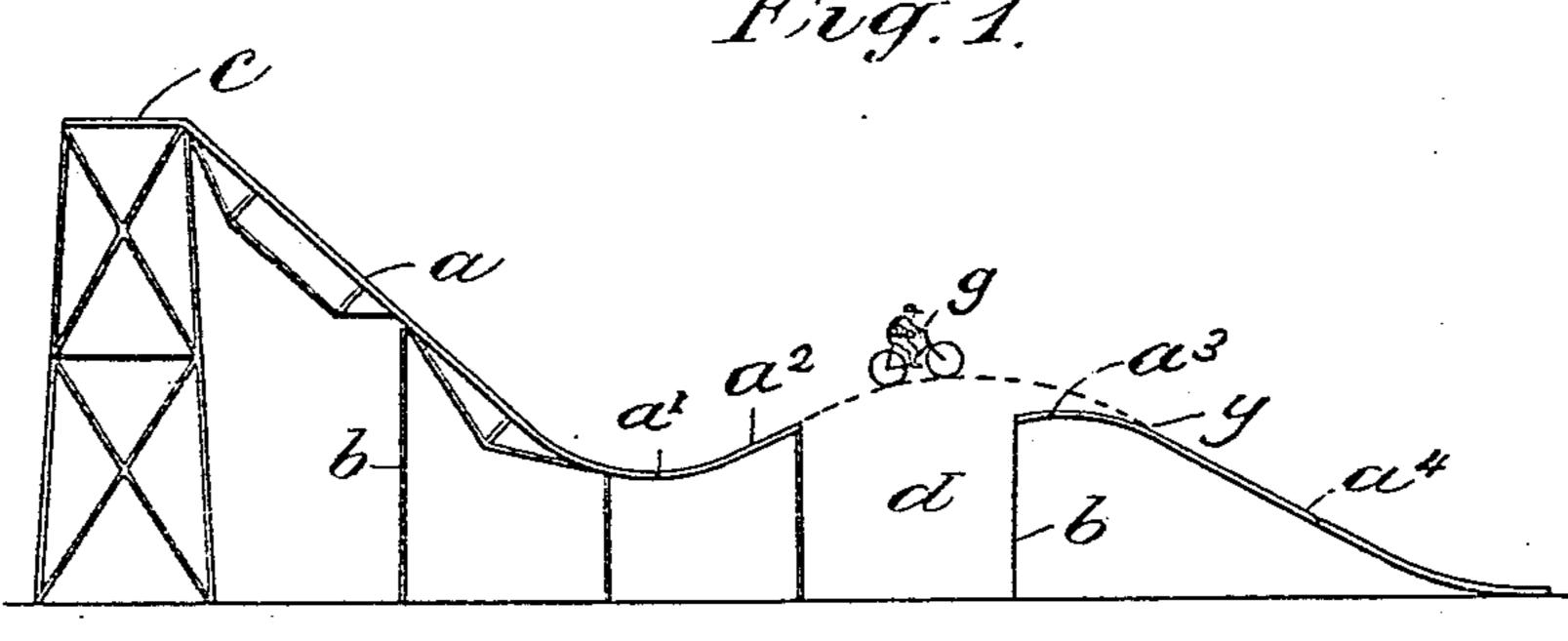
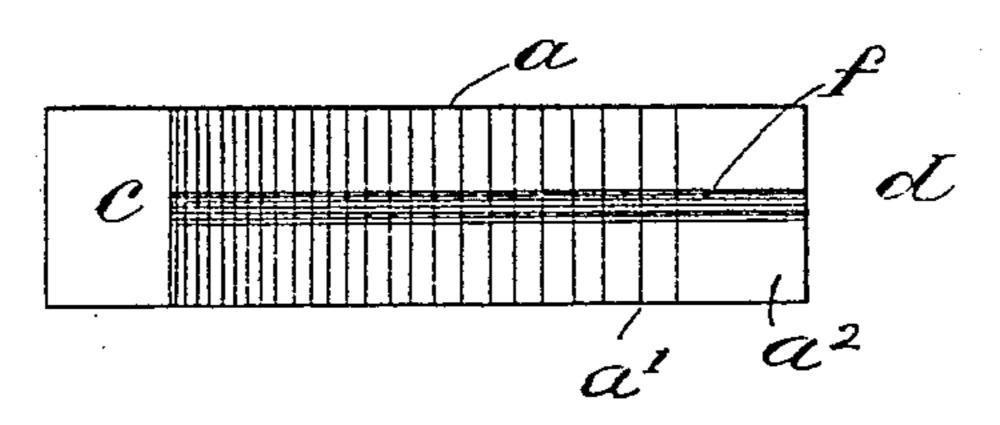
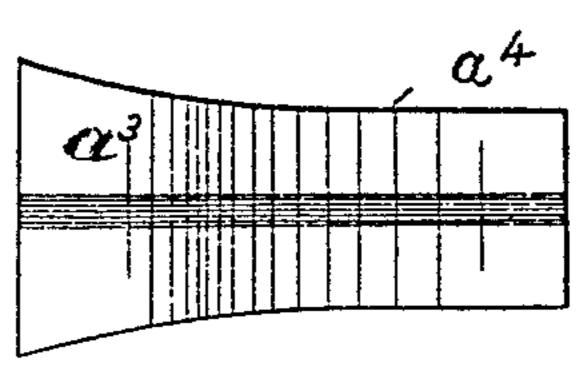
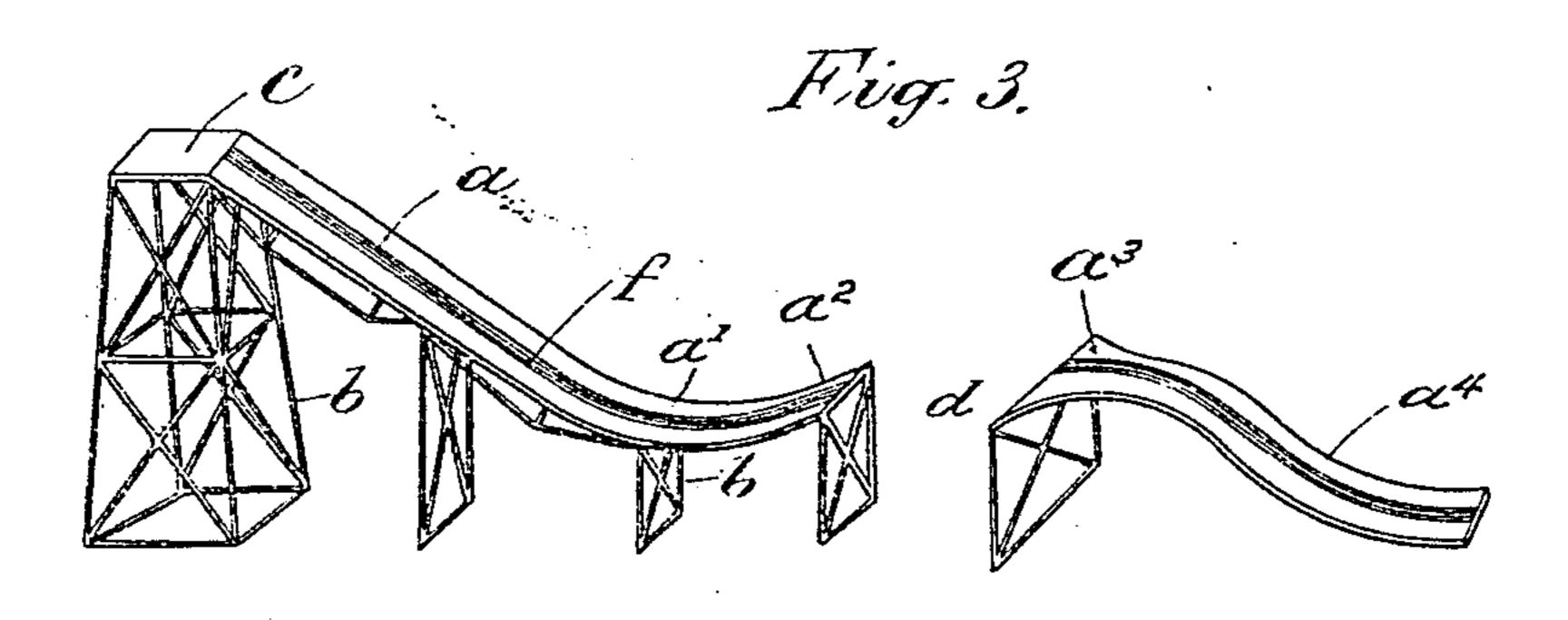


Fig. 2.







THE NORRIS PETFIS CO., PHOTO-LITHO, WASHINGTON, O. C.

Witnesses: J. M. Himau Enjamin Holl Hélene Dutrieu

## United States Patent Office.

## HÉLÈNE DUTRIEU, OF PARIS, FRANCE.

## CONSTRUCTION OF SWITCHBACK-ROADWAYS.

SPECIFICATION forming part of Letters Patent No. 749,607, dated January 12, 1904.

Application filed August 19, 1903. Serial No. 170,042. (No model.)

To all whom it may concern:

Be it known that I, HÉLÈNE DUTRIEU, residing in Paris, France, have invented certain new and useful Improvements in Interrupted 5 Tracks for Cycles, of which the following is a specification.

This invention relates to amusement or recreation devices wherein an inclined and interrupted track is employed down which a 10 cyclist rides, the impetus carrying the rider safely beyond the gap or interruption in the track.

In the accompanying drawings, which serve to illustrate an embodiment of the invention, 15 Figure 1 is a side elevation of the track. Fig. 2 is a plane of the same, and Fig. 3 is a perspective view of the same.

The track consists of the parts a, a', a'', a'', and  $a^4$  and is upheld by a suitable support, 20 which may be a frame b, of iron. At its upper end the track has a starting-platform c. At d, between the parts a' and a'' of the track, is a void or interruption, forming a gap across or over which the rider g must leap

25 with his cycle, as indicated in Fig. 1.

The material and essential features of the track, and this will now be described.

The main portion a of the track is inclined, 30 extending from the elevated platform down to the point where it is joined by the concave curved portion a with the part a at the margin of the gap d. This portion a is inclined upward and is a plane tangent to the parabolic 35 curve of the trajectory or path followed by the rider, as indicated in dotted lines in Fig. 1. The portions a and a are tangent to the curved portion a', or substantially so. The portion  $a^3$  of the track which joins the termi-40 nal inclined portion at the theoretical point y, where the parabolic trajectory meets the track beyond the gap, is slightly convex and may be mounted on springs or made springy. It is of course calculated that the cycle will 45 in every descent of the track follow the theo-

retical parabolic path and impinge on the terminal track at at y, said track at being, like the portion  $a^3$ , tangent to the said path; but as this cannot always be complied with accurately and the point of impact may vary 50 slightly from several causes the portion  $a^3$ of the track is provided and disposed between the theoretical point of impact y and the margin of the gap d to receive the cycle and prevent it and the rider from falling into the gap 55 d. To further cushion the shock of the impact in case the cycle alights on the part  $a^3$ of the track, this part may have loose material—such as earth, sand, sawdust, or the like—spread over it.

The track may be marked with lines f (seen in Fig. 2) to guide the rider and enable the latter to keep an exact middle course, and as a precaution the part  $a^3$  may be made wider, as seen in Fig. 2, than the other parts of the 65 track in order to allow for some lateral deviation of the cycle in bounding over the gap and alighting on the part of the track beyond.

In case the track is sufficiently elevated at the platform c and long enough there might 70 be more than one gap or interruption in it; invention reside in the peculiar contour of the | but as this would be a mere repetition of what is shown no further illustration will be necessary.

> It is essential to the safe and proper opera- 75 tion of this track that the upwardly-inclined plane portion  $a^3$  of the track where the cycle takes the leap shall have a length at least equal to the distance between the centers of the front and rear wheels of the cycle used, 80 as otherwise the latter will not follow the parabolic trajectory contemplated and be plunged into the open gap d.

Having thus described my invention, I claim—

An elevated cycle-track for the purpose specified, comprising a downwardly-inclined portion a, an upwardly-inclined portion  $a^2$  at the margin of a gap in the track and joined to the portion a by a curved portion a, said 9°

749,607

portion  $a^2$  being tangent to the parabolic curve of the path traveled by the cycle in leaping the gap, and having a length as great as the distance between the centers of the cycle-5 wheels, and a terminal downwardly-inclined portion of the track beyond said gap and also tangent to the said parabolic path.

In witness whereof I have hereunto signed my name, this 4th day of August, 1903, in the presence of two subscribing witnesses.

HÉLÈNE DUTRIEU.

Witnesses:

Jules Armengaud, Jeune, Augustus E. Ingram.