

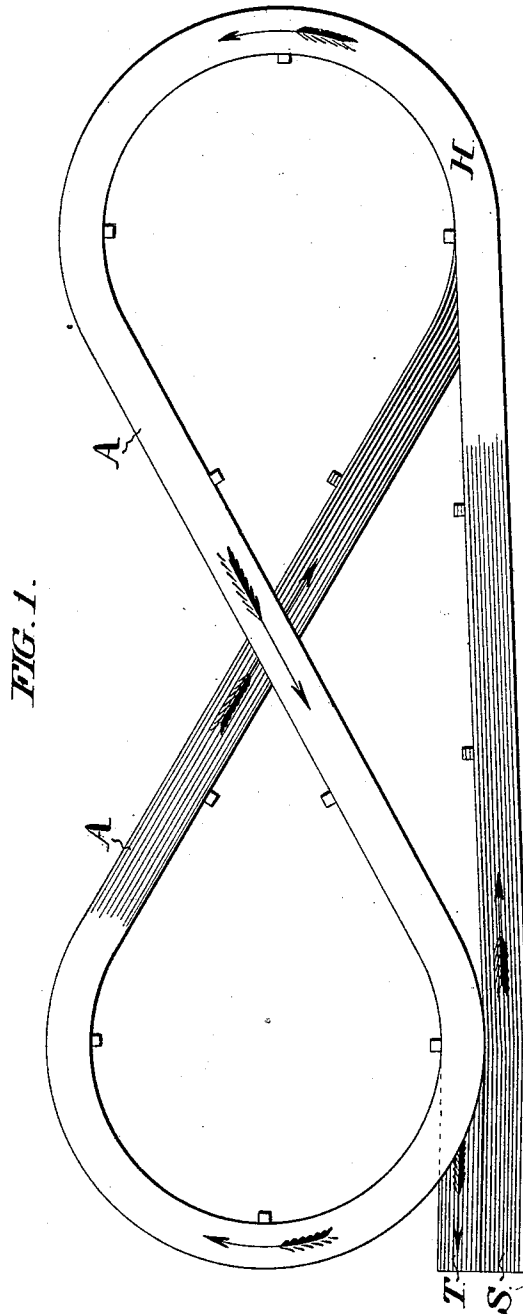
(No Model.)

2 Sheets—Sheet 1.

E. J. MORRIS.
TOBOGGAN SLIDE.

No. 522,025.

Patented June 26, 1894.



WITNESSES:

J. Norman Dixon
Thomas K. Lancaster.

E. Joy Morris, INVENTOR
By his Attorneys,
Wm. C. Strawbridge
J. Bonsall Taylor

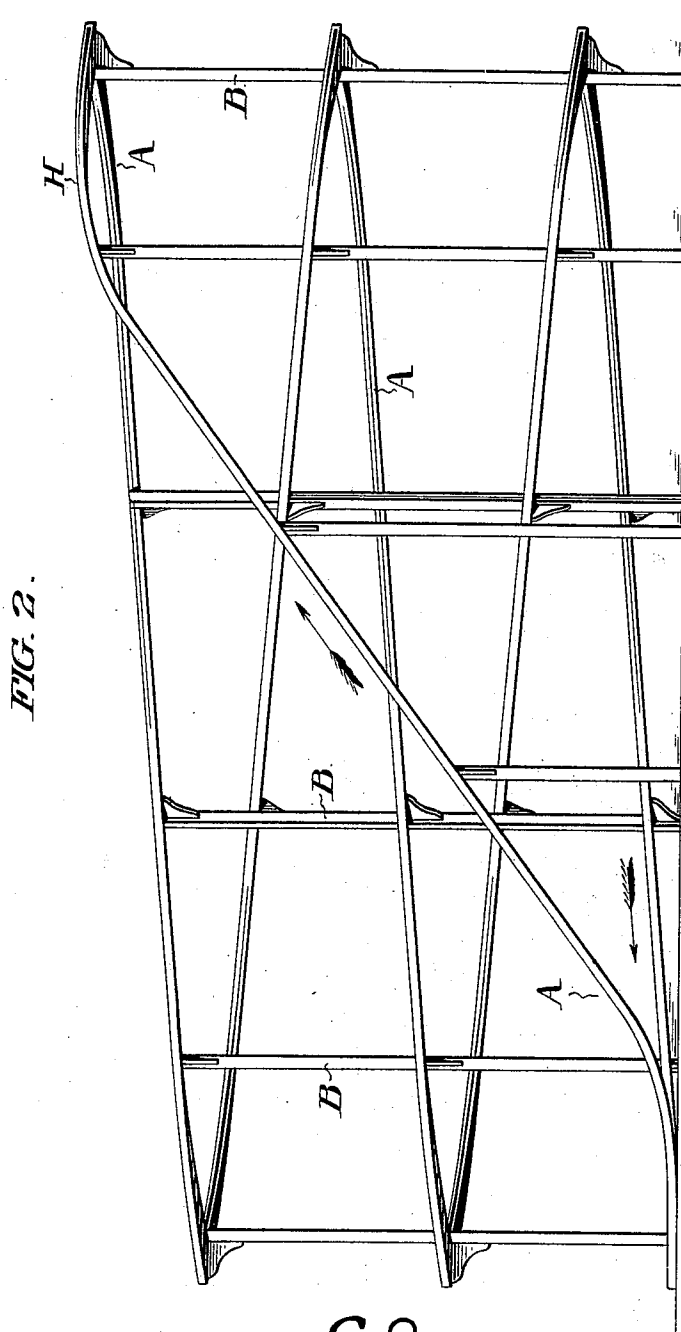
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UNITED STATES PATENT OFFICE.

EDWARD JOY MORRIS, OF PHILADELPHIA, PENNSYLVANIA.

TOBOGGAN-SLIDE.

SPECIFICATION forming part of Letters Patent No. 522,025, dated June 26, 1894.

Application filed March 16, 1894. Serial No. 503,849. (No model.)

To all whom it may concern:

Be it known that I, EDWARD JOY MORRIS, a citizen of the United States, residing in the city and county of Philadelphia, in the State of Pennsylvania, have invented an Improvement in Toboggan-Slides, of which the following is a specification.

My invention relates to the class of toys or amusement apparatus known as toboggan slides, and consisting of permanent ways usually elevated from the ground and disposed in a downwardly inclined circuitous or spiral arrangement so as to secure the maximum length of track in the space available,—of toboggans or trolleys adapted for travel along said ways,—and of motive devices, such as suitably actuated cables, for the elevation of the toboggans to upper levels of the ways.

In apparatus of the foregoing character it is desirable that the ways should be straight for as great a portion of their length as possible, and also that the curves should be of the greatest possible radius,—both to insure ease and smoothness of travel of the toboggan and consequent comfort of the passengers,—and to lessen as far as possible the strain upon the ways, the toboggan, and the motive mechanism, incident to traveling at high speeds around curves of small radius.

It is the object of my invention,—which relates to the ways alone,—to provide a permanent toboggan way of novel and attractive form, combining long straight courses with curved courses of large radius, and allowing of a maximum length of ways for the space occupied by the structure as an entirety.

In the drawings, Figure 1 is a top plan view, and Fig. 2 a view in side elevation, of a permanent toboggan way embodying a good form of my invention.

The toboggan slide way may, as stated, be of any selected character or material,—and the toboggans of any preferred character, preferably roller-provided, and arranged to travel by gravity, and as to upwardly inclined courses to be propelled by motive power applied in any desired manner.

Generally stated, my invention comprehends the provision of a permanent toboggan way, the intermediate courses or stretches of which are elevated from the ground, possess

any desired downward inclination, and are arranged, in plan, in the general form of a figure 8, which from the bottom of the structure to its top, is duplicated or multiplied any desired number of times, one figure merging into another.

In the accompanying drawings, A are the toboggan slide ways proper, the same consisting of a narrow elongated tramway of any preferred construction, and provided with one or more railways, and B are the uprights, piers, posts, or brackets, upon which said ways are supported. It will, of course, be understood that uprights or supports of any desired character and disposed in any desired arrangement, may be employed.

Assuming that the end of the ways which is designated S to be the starting point, and pursuing along said ways the course taken by a toboggan in use upon them, the said ways rise without lateral curves, and at such inclination as the proportions of the structure may dictate, from said starting point to such height as may be predetermined, being the highest point of the completed structure and indicated by the letter H in the accompanying drawings. From said highest point H the ways trend downward to the left and toward the west side of the structure, in a curve of preferably one hundred and eighty degrees and of a diameter which is preferably equal to the full breadth of the structure,—then extend in a downward course which is straight but oblique with reference to the major horizontal axis of the structure, to a point at the east side of the structure close to its south end,—then trend toward the west in a curve of preferably one hundred and eighty degrees and of a diameter which is preferably equal to the full breadth of the structure,—then extend in a downward course which is straight, but oblique with reference to the major horizontal axis of the structure, to a point at the east side of the structure in the immediate vicinity of the north end, and so on, with a predetermined gradual downward inclination from the highest point hereinbefore mentioned, to the terminus at the base, marked T. The ways are so arranged that the starting point and the terminus are upon a common level and side by side, in order that those

in control of the apparatus may at the same time oversee and control both the departing and the arriving toboggans. The toboggans employed may, as stated, be of any preferred structure.

5 Having thus described my invention, I claim and desire to secure by Letters Patent—

1. A toboggan slide way the intermediate courses or stretches of which are inclined and
10 possess in plan the form of a figure 8, and the terminals of which are disposed side by side upon a practically common lower or ground level,—substantially as set forth.

2. A toboggan slide way consisting of inter-
15 mediate courses or stretches which are ele-

vated and inclined from a high point to the ground and disposed in reverse curves which form in plan a series of figures 8 overlying and continuous of each other, and the terminals of which exist side by side upon a practically common lower or ground level,—substantially as set forth. 20

In testimony that I claim the foregoing as my invention I have hereunto signed my name this 12th day of March, A. D. 1894.

E. JOY MORRIS.

In presence of—

J. BONSALE TAYLOR,
F. NORMAN DIXON.