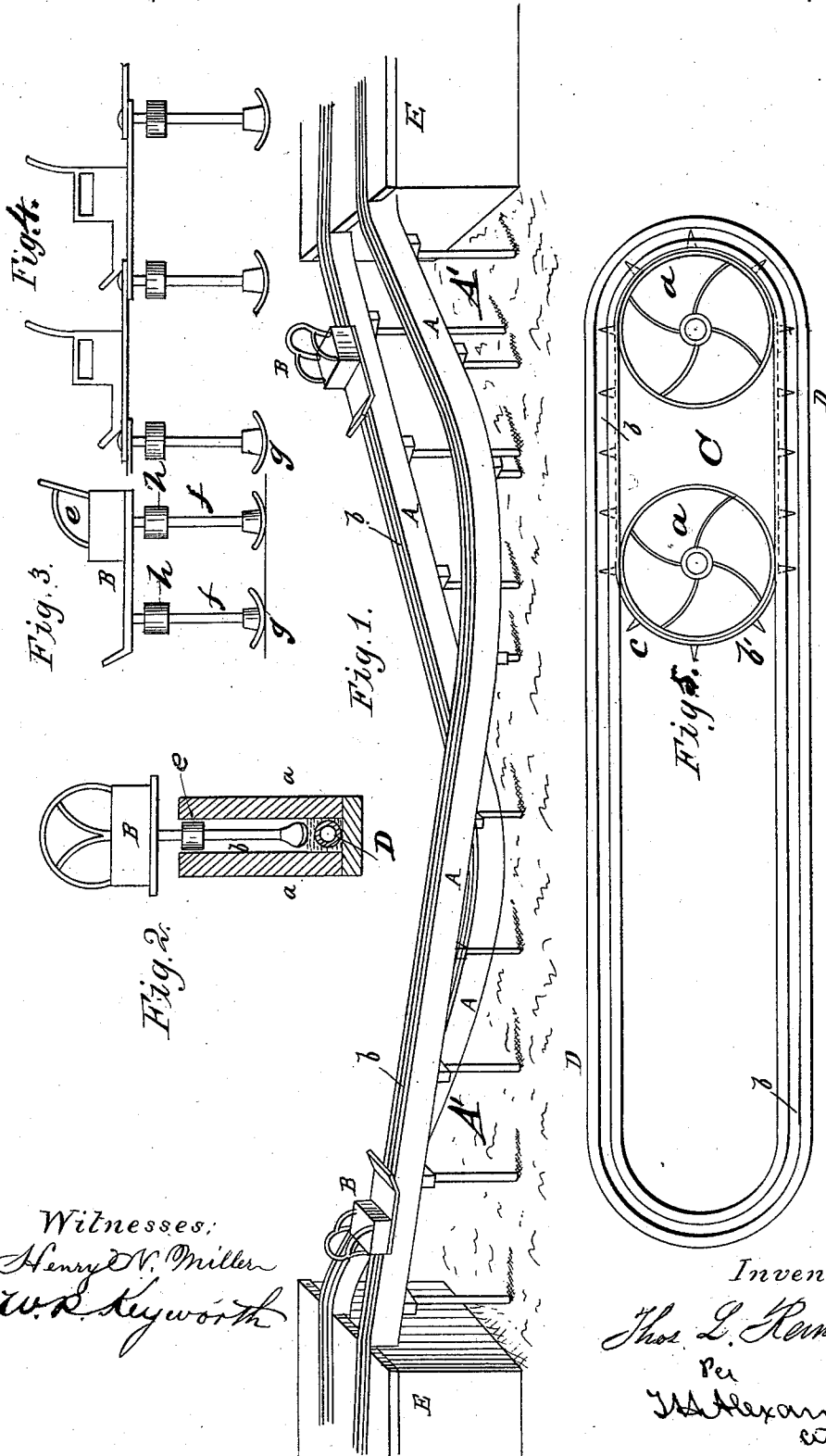


(No Model.)

T. L. RANKIN.
COASTING TRACK.

No. 308,795.

Patented Dec. 2, 1884.



Witnesses:
Henry V. Miller
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UNITED STATES PATENT OFFICE.

THOMAS L. RANKIN, OF NEW YORK, N. Y.

COASTING-TRACK.

SPECIFICATION forming part of Letters Patent No. 308,795, dated December 2, 1884.

Application filed September 20, 1884. (No model.)

To all whom it may concern:

Be it known that I, THOMAS L. RANKIN, of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Coasting-Tracks; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification, in which—

Figure 1 is a perspective view of my improved coasting-track, a portion of one end being broken away. Fig. 2 is a vertical cross-section through the track or trough, showing a sled mounted in it. Fig. 3 is a side elevation of a single sled. Fig. 4 is a side elevation of a bob-sled. Fig. 5 is a plan view of a continuous track having an endless carrier applied at one end.

This invention relates to what are denominated "coasting-tracks," which are designed to afford amusement similar to snow-sleighing in the winter. My object is to afford sleighing on ice during the summer months by means which will be fully understood from the following description, when taken in connection with the annexed drawings.

A designates a continuous track, which may be made of any desired length. The ends of this track are supported upon elevations E E, and the track is curved, as shown in Fig. 1, to represent hills and valleys, to give impetus to the sled. The curves or inclines are such that the momentum acquired in descending one portion of the track from an elevation, E, will be such that the sled will ascend the opposite elevation, E, nearly to the top of the same. But to insure a positive ascent of a sled I employ at each end of the continuous track an elevator, C, which consists of two pulleys, *a*, and an endless chain, *b*, having spurs *c* secured to it at proper distances apart. These elevators are located at and near the termini of the highest points of the inclines of the track, and they are driven by any suitable motor. The spurs *c* pass through the sides of the track and engage with the legs of the sled and carry it up the elevations and around the ends of the track, leaving it again free to descend

by its own gravity. The track is made in the form of a trough with two vertical sides, as shown in Fig. 2. At the bottom of this trough are one or more pipes, D, which should communicate with any well-known machine adapted to make ice, and which is provided with a pump adapted for forcing a current of brine or ammoniacal gas below freezing-point through said pipes. The pipe or pipes are covered with a layer of iron chips and then a layer of Portland cement, which latter is smoothed so as to leave a flat surface and at the same time a good conductor of cold on top of the refrigerating pipe or pipes in the trough. When the temperature of the pipe and cement in the trough has been lowered below the freezing-point in consequence of the rapid absorption of heat by the refrigerating liquid or gas forced through the pipes D, I inject into the trough a fine spray of water, which will be converted into ice. By these means I form a layer of solid ice in the trough, which will be prevented from melting by keeping the refrigerant constantly flowing through the pipes D.

F designates a sled, which consists of a seat, *e*, two legs, *f f*, short curved swivel-runners *g g*, and rollers *h h*, for steadying the sled in the trough.

If it is desired to use a bob-sled, or a sled with more than one seat, I connect the floors of the sleds together by joints, as shown by Fig. 4, so that the sleds are free to accommodate themselves to the curves in the track. The track shown by Fig. 1 is mounted upon pillars A'; but where the surface of the ground affords the proper hills and valleys the track may be supported thereon properly ballasted.

The trough may be made of any desired width and depth; or, if desired, double tracks may be adopted.

Having described my invention, I claim—

1. The combination, with an inclined trough or coasting-track, of one or more pipes in its bottom adapted for the circulation of a refrigerant, substantially as and for the purposes described.

2. The combination, in an ice coasting-track, of a trough and one or more pipes at

its bottom covered with a good conductor and a layer of cement, substantially as described.

3. The combination, in a coasting-track, of an inclined ice-trough in which the sleds are
5 arranged to travel, and an endless elevator adapted to raise the sleds positively at the end of the trip, substantially as specified.

4. A sled consisting of a seat mounted on legs and swivel-runners and provided with
10 rollers, in combination with a trough-shaped

coasting-track, substantially in the manner and for the purposes described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

THOMAS L. RANKIN.

Witnesses:

JOHN C. ROGERS,

CHAS. H. HARRIS.