Aug. 16, 1966 W. P. YEE 3,266,800

PORTABLE SKATING TRACK

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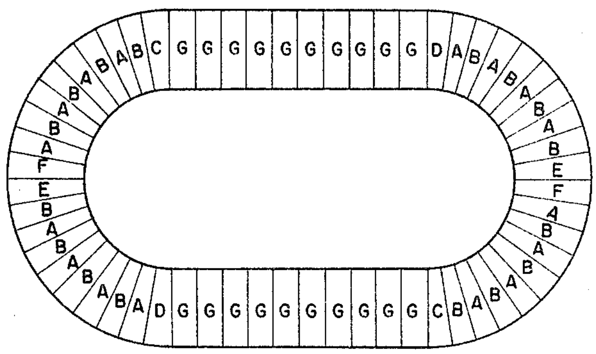


FIG 1

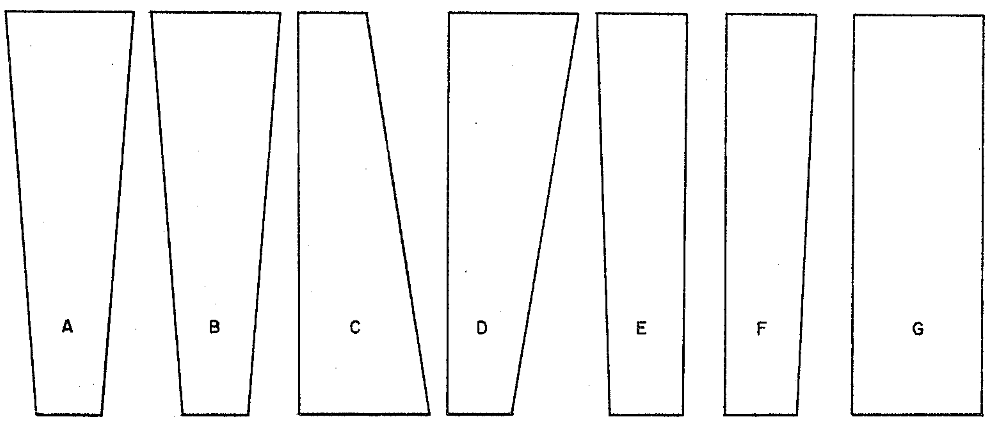



FIG 2

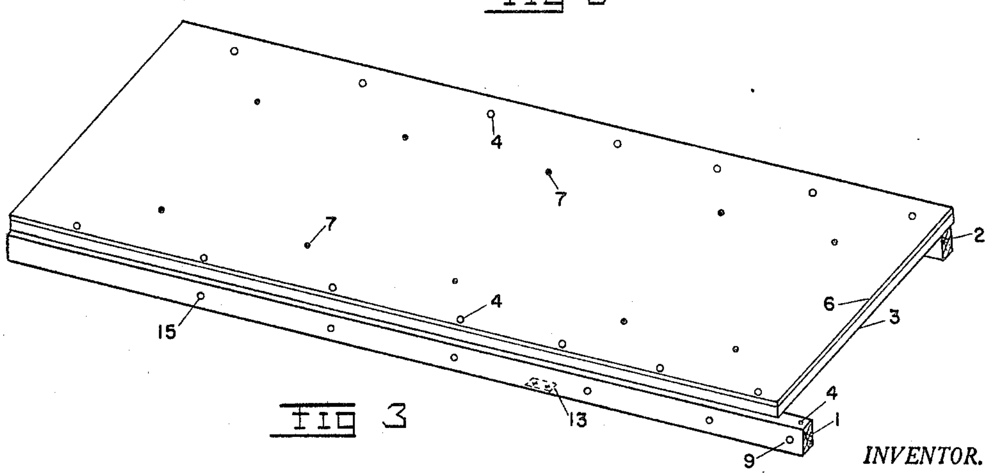



FIG 3

INVENTOR.
WALLY P. YEE

BY George W. F. Loo

ATTORNEY

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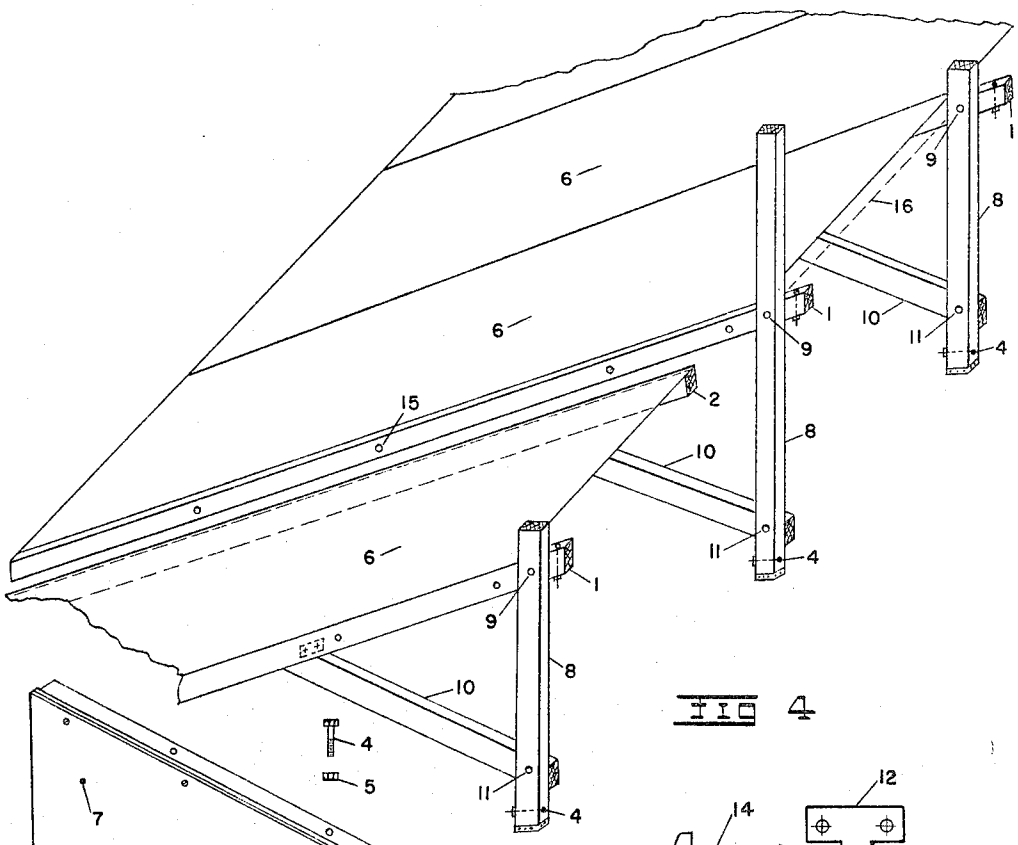



FIG 4

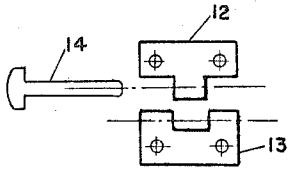



FIG 5




FIG 6

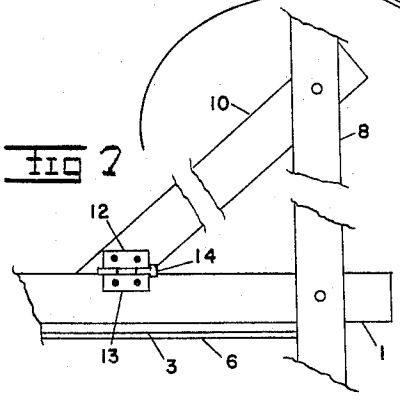



FIG 7

INVENTOR.
WALLY P. YEE
BY
ATTORNEY

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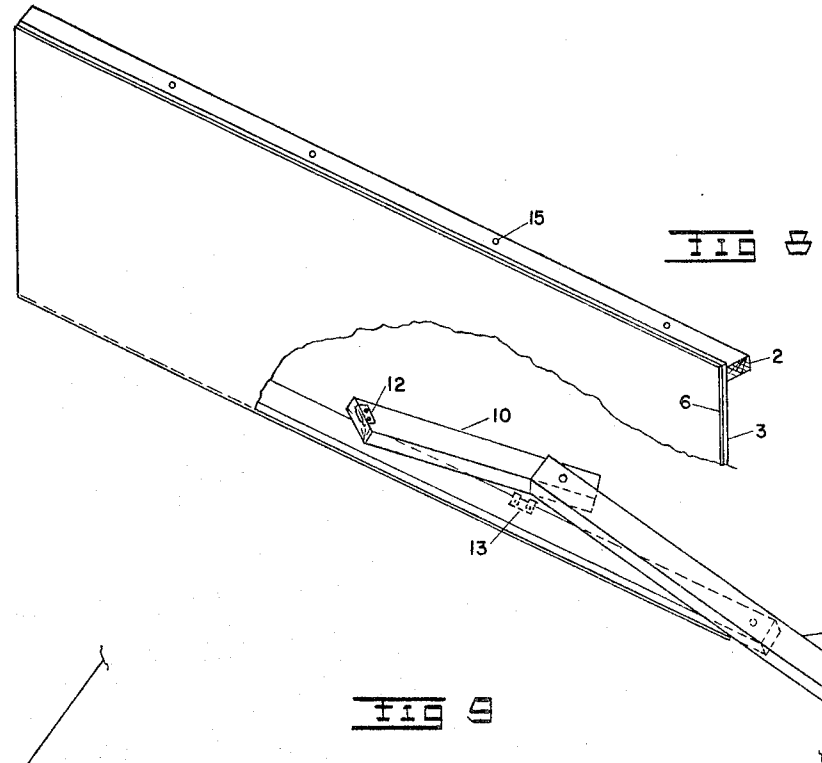
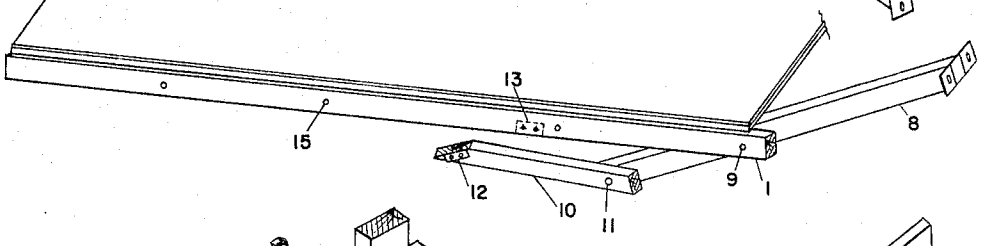
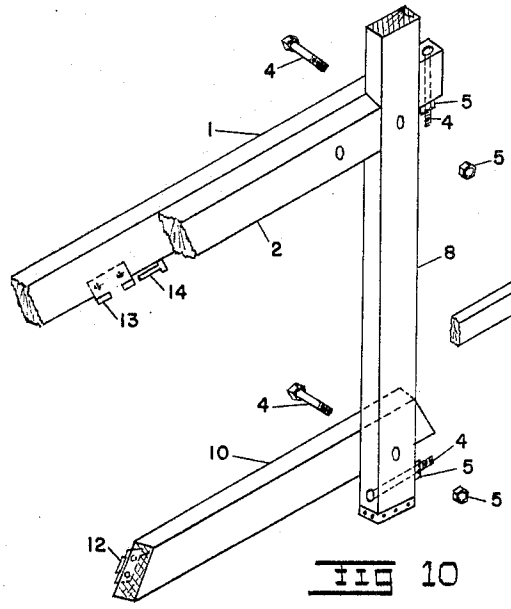



FIG 8

FIG 9



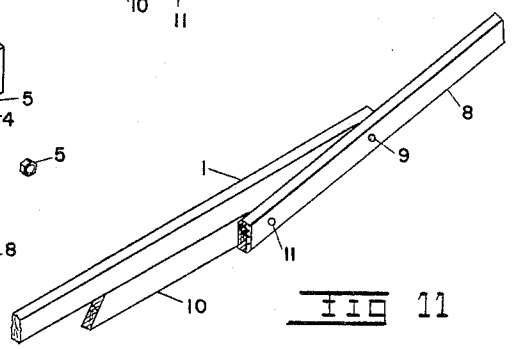




FIG 11




FIG 10

*INVENTOR.*
WALLY P YEE
*BY* George W. T. Lee
ATTORNEY

United States Patent Office 3,266,800
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3,266,800

# PORTABLE SKATING TRACK

Wally P. Yee, Honolulu, Hawaii, assignor to Bay Promotions, Inc., Oakland, Calif., a corporation of California

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3 Claims. (Cl. 272—3)

The present invention relates to a high speed portable skating track for roller skating contests which will benefit its owner in the following ways when compared to existing portable skating tracks: (1) lower initial cost; (2) less labor and time required to erect and dismantle it so that a roller skating show may be fitted in a tight schedule; (3) lower shipping cost due to its lighter weight and compactness; (4) lower repair and maintenance costs.

The existing portable skating tracks are all built in sections of 6′ x 12′ or larger. The sections are supported at their middle portions to prevent sag by intermediate uprights and runners and are joined together with bolts and nails. They all have the problem of wandering away from their designed shape during their installation which make the joining together of their first and last section a great hardship.

They all use an overlapping 2′ x 12′ Masonite piece to cover the split in the ¾″ plywood platforms at the juncture of two sections. The overlapping 2′ x 12′ Masonite pieces are installed on the plywood platforms each time the tracks are set up and removed from the plywood platforms each time the tracks are moved. This constant installing and removing of the overlapping 2′ x 12′ Masonite pieces results in enlarged screw holes in the plywood platforms. The enlarged screw holes necessitate the boring of new holes for the screws and eventually the replacement of the plywood platforms and the Masonite pieces. Moreover, because of loose screws there is presented a danger to the skaters.

In the assembly of the existing portable skating tracks experienced laborers are required since they must know what holes to put the bolts or nails in and how to plumb the uprights. In addition two sections must be carried at the same time in order to assemble them to an upright as the uprights are not connected to the sections prior to the joining of sections to each other.

An object of this invention is to provide a portable skating track which will considerably reduce the time required to assemble and disassemble it as compared to existing portable skating tracks.

Another object of this invention is to provide a portable skating track wherein the cost for maintenance and repair will be considerably reduced as compared to existing portable skating tracks.

Still another object of this invention is to provide a portable skating track which will cost considerably less to produce than existing portable skating tracks.

Yet another object of this invention is to provide a portable skating track which will weigh less than existing portable skating tracks and hence cost less to ship or transport.

A further object of this invention is to provide a portable skating track where there will be no wandering of the track while it is being assembled and where the first section and last section will always meet perfectly.

A still further object of this invention is to provide a portable skating track wherein the uprights and braces are permanently connected to the sections.

Yet another object of this invention is to provide a portable skating track wherein the uprights and braces fold into the sections during their disassembly.

A further object of this invention is to provide a portable skating track wherein the uprights are always plumb when they are in their extended position.



A still further object of this invention is to provide a portable skating track wherein no intermediate uprights are used.

Yet another object of this invention is to provide a portable skating track which has permanently installed Masonite surfaces.

A further object of this invention is to provide a portable skating track wherein there are no open seams in the Masonite surfaces due to the close fit between the Masonite surfaces.

A still further object of this invention is to provide a portable skating track which can be assembled by inexperienced laborers.

Other objects, features and advantages of the present invention will be readily apparent from the following detailed description taken in connection with the accompanying drawings in which:

FIGURE 1 is a plan view of a high speed portable skating track with the various sized sections shown and denoted.

FIGURE 2 is an enlarged plan view of the various sized sections shown in FIGURE 1.

FIGURE 3 is a perspective view of a section minus the upright and brace.

FIGURE 4 is a perspective view showing two sections connected together and another section in the process of being connected to them.

FIGURE 5 is an enlarged rear view of the male joint, female joint, and joint pin.

FIGURE 6 is a perspective view of a section with the upright and brace in operating position.

FIGURE 7 is an enlarged rear view of the connection of the brace to the runner by means of the male joint, female joint, and joint pin.

FIGURE 8 is a perspective view of a section with the platform and Masonite surface partially broken off in order to better show the upright and brace in a folded position.

FIGURE 9 is a fragmentary perspective view of a section showing the upright and brace in a partial folded position.

FIGURE 10 is a fragmentary perspective view showing the runner, upright, and brace of a section and the joist of another section connected to the runner of the first section.

FIGURE 11 is a perspective view showing the upright and brace in a folded position with respect to the runner.

Before explaining the present invention in detail, it is to be understood that the invention is not limited in its application to the details of construction and arrangement of parts illustrated in the accompanying drawings, since the invention is capable of other embodiments and of being practiced or carried out in various ways. Also, it is to be understood that the phraseology or terminology employed herein is for the purpose of description and not limitation.

Referring now to the drawings wherein like reference numerals refer to like and corresponding parts throughout the several views, the preferred embodiment of the invention disclosed in FIGURES 1–11 inclusive consists of a series of various shaped sections A, B, C, D, E, F, and G which are joined together in a predetermined order, as shown in FIGURE 1, to form a high speed portable skating track for roller skating contests.

All of the sections are made in the same manner. They differ only in their shapes, the length of their uprights, and the length of their braces. A typical section, as shown in FIGURE 6, includes a runner **1**, a joist **2**, a plywood platform **3**, bolts **4**, nuts **5**, Masonite surface **6**, tapered Phillips screws **7**, upright **8**, brace **10**, male joint **12**, female joint **13**, and joint pin **14**. The runner and

joist each have a series of connecting holes **15** throughout their length. To insure a precision fit all the connecting holes **15** are drilled according to a pattern with the runner and joist that are going to be bolted together being drilled together.

Platform **3**, as shown in FIGURE 3, is bolted to runner **1** and joist **2** so that there is a ⅜" inset on the runner and a ⅜" offset on the joist. Masonite surface **6** is secured to platform **3** by means of staggered Phillips screws **7**. Upright **8** is bolted to runner **1** at **9**. Brace **10** is bolted to upright **8** at **11**. A male joint **12** is secured to the other end of the brace. A female joint **13** is secured to the inside of runner **1** in juxtaposition with the male joint.

The upright **8**, as shown in FIGURES 4 and 10, may be reinforced by inserting a bolt **4** through its end portion and securing the bolt by a nut **5**. It may be banded at its end to prevent splitting. Runner **1**, as shown in FIGURES 4 and 10, may be reinforced by inserting a bolt **4** through its end portion and securing it by a nut **5**. A cross beam **16**, shown in FIGURE 4 in dotted outline, may be bolted between the runner and joist to add greater strength to the section.

In FIGURE 8, the upright **8** is permanently secured to runner **1**, while the brace **10** is permanently secured to the upright. The upright and brace are folded alongside the runner when the section is not in use. When the section is to be put in use, the upright and brace are placed in their extended position. The brace is secured to the runner by connecting the female and male joints together with a joint pin. The section is then ready to be bolted to another section according to a prearranged plan. The fact that the upright and brace are permanently secured to the runner and upright, respectively, and are folded alongside the runner is an important feature of my invention for much time is saved by not having to attach the upright and brace during the assembly of the sections and much time is saved by not having to detach the upright and brace during the disassembly of the sections. In addition, more time is saved during the assembly of the sections because the upright is always in the right position and need not be plumbed. In existing portable skating tracks, the upright must be attached to the section during the assembly of the sections and plumbed and must be detached during the assembly of the sections.

The Masonite surface **6** is permanently attached to the platform **3** and is never removed during the assembly and disassembly of the section. This feature saves time and labor in installing and removing of my invention as compared to existing portable skating tracks since they all use an overlapping Masonite piece to cover the split in the plywood platforms at the juncture of two sections. This overlapping Masonite piece must be installed each time the existing portable skating tracks are assembled and must be removed each time the existing portable skating tracks are disassembled. This constant installing and removal of the overlapping Masonite piece each time an existing portable skating track is set up and taken down result in the enlargement of screw holes in the plywood platforms, necessitating new holes to be bored and eventually resulting in the replacement of the plywood platforms and the overlapping Masonite pieces. Also there is a danger of screws becoming loose from the constant installing and removing of the overlapping Masonite pieces and presenting a hazard to skaters.

The sections of my invention are made in four feet width instead of six feet width as in the present skating tracks so as to eliminate the need for an intermediate upright and runner to prevent sag in the sections. The use of intermediate upright and runner makes each section of former skating tracks heavier and harder to handle than each section of my track. In addition the ⅜" inset of the platform to the runner and the ⅜" offset of the platform to the joist aids in preventing sag between the sections.



The runners, joists, uprights, and braces are made of wood. They could be made out of any material which has equivalent or greater strength and durability, such as tubular steel. I prefer wood because of its low initial and replacement costs and its relatively light weight when compared to other materials. In addition to use of wood runners and joists result in give or take at the joining of adjacent sections when they are bolted together thereby insuring that there will be no open seams between the Masonite surfaces of the sections.

My invention is assembled in the following manner: (1) Various sized sections are assembled in a predetermined order; (2) the runner and joist of each section are unfolded from the upright and brace; (3) the female joint on the runner and male joint on the brace are joined together with a joint pin; (4) the first section is bolted to the second section by bolting the runner of the first section to the joist of the second section; (5) the runner of the second section is bolted to the joist of the third section; (6) continue connecting one section to another section by bolting the runner of the lower numbered section to the joist of the higher numbered section until the runner of the last section is connected with the joist of the first section.

My invention is disassembled in the following manner: (1) Disconnect the joist of the first section from the runner of the last section; (2) disconnect the female and male joints of the last section; (3) disconnect the joist of the last section from the runner of the second to the last section; (4) fold the upright and brace of the last section alongside the runner of the last section; (5) continue disconnecting one section from another in inverse order until all the sections are disconnected from each other and have their uprights and braces folded alongside their runners as mentioned in steps 1–4 above; (6) stack the sections in inverse order for later use or shipment.

My invention is designed for a precision fit so that when it is put together there need be no experienced workers. All the workers have to do is to follow a plan as to the assembly of the sections since the length of the uprights and braces will vary depending on their positions on the track. There is no wandering of the track while it is being assembled because the runners and joists have holes which were drilled previously according to a pattern so that when the holes are aligned and the runner and adjacent joist are bolted together there is no chance for wandering. Thus the first section and last section will always meet perfectly. In addition since the uprights are always plumb, there is no need to plumb the uprights. All existing portable skating tracks have the problem of wandering away from their designed shape during their installation which make the joining together of their first and last sections a great hardship. Moreover, each upright must be plumbed individually. Experienced men are required to assemble existing tracks since they must know what holes to put the bolts and nails in and how to plumb the uprights. In addition two sections must be carried at the same time to assemble an upright where in my invention only one section need be carried since my uprights are permanently attached to the sections.

My invention can be made wider or longer at will by adding a predetermined number of sections G at the middle of both ends or at the center of my track.

The cost of my invention is approximately half of the present existing skating tracks. It has approximately ¾ the volume of the present tracks and weighs considerably less. Since its cost is much less than the cost of a present existing skating track and the cost of shipping it would be approximately the cost of purchasing it, more persons will be encouraged to own it.

The speed in which it can be assembled and disassembled will allow a promoter to fit a roller skating show in a tight schedule. It will take eight men only one

hour to assemble my invention and one hour to disassemble it. Two men could assemble or disassemble it in three hours.

In summary, the features of my invention are: (1) Permanently attached uprights and braces which may be folded alongside the runners when not in use; (2) permanently installed Masonite surfaces– (3) no need to plumb the uprights since they are always plumb when in their extended position; (4) no need for intermediate uprights to prevent sagging; (5) no sagging between the sections because of the ⅜" inset of the plywood platforms to the runners and the ⅜" offset of the plywood platforms to the joists; (6) no wandering of the track during installation because of the precision fit of my track; (7) no open seams because of the perfect fit of the Masonite surfaces; (8) lighter weight because of the use of less material and kind of material; (9) speed in erection and dismantling because less parts need to be assembled and disassembled, and because there is no need to plumb the uprights; (10) ordinary labor can be used because each section is a precision fit and because there is no need to plumb the uprights; and (11) lower maintenance and repair cost when wood is utilized for the runners, joists, uprights, and braces and because of the use of permanently installed Masonite surfaces.

Although but a single embodiment of the invention has been disclosed and described herein, it is obvious that many changes may be made in the size, shape, arrangement, and detail of the various elements of the invention without departing from the scope of the novel concepts of the present invention.

I claim as my invention:

1. A high speed portable skating track comprising a series of various shaped sections which are joined together according to a predetermined arrangement, each section has an upright and a brace that may be folded within the section for ease of storage or transporting, each section includes a runner, a joist, a platform which is bolted along its length to the runner and joist, a Masonite surface which is secured to the platform, said upright being pivotally connected to the runner, said brace being pivotally connected at one end to the upright, a male joint which is connected to the other end of the brace, a female joint which is connected to the inside of the runner, and a joint pin which is inserted through the male and female joints when it is desired to secure the brace to the runner, the runner of one section is bolted together to the adjacent joist of another section.



2. A section of a high speed portable skating track including a runner, a joist, a platform, a Masonite surface, an upright, and a brace; the platform is connected to the upper surfaces of the runner and joist; the Masonite surface is attached to the upper surface of the platform; the upright is bolted to the inside surface of the runner; the brace is bolted at one of its ends to the same side of the upright as the runner; a male joint is secured to the other end of the brace on the same side of the brace as the upright; a female joint is secured to the inside of the runner in juxtaposition to the male joint; the runner and joist each have a series of connecting holes throughout their length whereby said section may be secured to an adjacent section to form said track; the female and male joints are joined together by a joint pin; the upright and brace are folded alongside the runner when the section is not in use.

3. A high speed portable skating track comprising a series of various shaped sections which are joined together according to a predetermined order; each section includes a runner, a joist, a platform, a Masonite surface, an upright, and a brace; the platform is secured to the runner and joist so that there is an inset of said platform on the runner and an offset of said platform of like amount on the joist; the Masonite surface is permanently secured to the platform; the upright is permanently bolted to the runner; the brace is permanently bolted at one end to the upright; a male joint is secured to the other end of the brace; a female joint is secured to the runner; the female and male joints are joined together by a joint pin; the runner and joist each have a series of connecting holes spaced throughout their length; whereby the runner of one section is detachably connected to the joist of the succeeding sections by means of the connecting holes and bolts and nuts.

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RICHARD C. PINKHAM, *Primary Examiner.*