UNITED STATES PATENT OFFICE.

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PORTABLE ROLLER-SKATING-RINK FLOOR.

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To all whom it may concern:

Be it known that I, FRANK R. YOUNG, a citizen of the United States, residing at Brookfield, in the county of
Linne and State of Missouri, have invented a new and
useful Portable Roller-Skating-Rink Floor, of which the following is a specification.

This invention relates to portable floors or platforms of
that general class designed for roller skating, dancing,
bicycle riding and the like and has for its object to pro-
vide a sectional floor or platform capable of being readi-
ly set up for use and quickly knocked down and com-
 pactly folded for transportation or shipment.

A further object of the invention is to provide a port-
aible floor which may be set up for use on a lawn, grass
plot or other inclosure or placed in position over a sta-
tionary or permanent floor of a building or similar
structure.

A further object is to provide a floor including a plu-
rality of separable sections arranged to break joint and
having interlocking parts whereby the several sections may be quickly assembled without the employment of
nails, and similar fastening devices.

A further object is to form the floor with one or more
boxes or compartments adapted to receive and support
a tent or canopy pole when the floor is set up for use in
the open air and further to form the boxes with drain
openings or apertures to permit the water from the tent
or canopy to be discharged beneath the floor in wet or
inclement weather.

A further object is to provide a portable floor having
collapsible seats or benches associated therewith and
further to provide a guard rail or closure for the floor.

Further objects and advantages will appear in the
following description, it being understood that various
changes in form, proportions and minor details of con-
struction may be resorted to within the scope of the ap-
 pended claims.

In the accompanying drawings forming part of this
specification: Figure 1 is a top plan view of a portable
floor or platform constructed in accordance with my
invention. Figure 2 is an elevation of the same. Figure
3 is an end view of one of the sections constituting the
floor. Figure 4 is a perspective view of one of the pole
supporting boxes or compartments. Figure 5 is a sec-
tional side elevation of a portion of the floor showing the
arrangement of the joints or sills. Figure 6 is a side eleva-
tion of one of the posts or standards constituting the
guard rail. Figure 7 is a front elevation of Figure 6. Figure
8 is a top plan view of one of the sockets for the fastening
devices of the floor sections. Figure 9 is a transverse sec-
tional view taken on the line 9—9 of Figure 8. Figure 10 is
an end view showing the manner of piling the joists for
transportation or shipment. Figure 11 is a vertical sec-
tional view showing the manner of connecting the abut-
ting ends of the top rail to the adjacent post. Figure 12 is
an enlarged top plan view showing the locking strip and
wedges. Figure 13 is an enlarged end elevation showing
the manner of supporting the seats. Figure 14 is a side
elevation partly in section of one of the longitudinal sills showing a level in position thereon. Figure 15 is a
top plan view showing a different form of locking wedge. Figure 16 is a detail sectional view illustrating
a modified form of clamp for connecting the transverse
clamps.

Similar numerals of reference indicate corresponding
parts in all of the figures of the drawings.

The portable floor or platform forming the subject
matter of the present invention is preferably formed of
a plurality of separable sections 5 laid to break joint
and having their abutting ends provided with tongues
and grooves connections 6 and 7, as best shown in Figs.
1 and 5 of the drawings.

The sections 5 are supported in elevated position
above the ground on spaced transverse joists 8, the lat-
ter being mounted on longitudinal sills 9 which rest on
the ground, as shown, and serve to prevent the joists
from coming in contact with the ground and decaying
when exposed to the elements.

Secured in any suitable manner to the bottom of each of
the floor sections 5 are transverse cleats 10 preferably
spaced apart a distance equal to the distance between
the joists and adapted to bear against one longitudinal
face of the latter when the floor is set up for use.

Some of the transverse cleats 10 are provided with
fastening devices preferably in the form of bolts 11 each
having one end extended laterally beyond the adjacent
cleat and adapted to engage a correspondingly shaped
opening formed in the transverse cleat of a contiguous
section, said sections being fastened together by means
of a clamping nut 12 which engages the threaded end
of the bolt 11 and serves to draw the adjacent cleats
together.

As a means for anchoring the floor to the longitudinal
sills 9 there are provided a plurality of vertically dispo-
sed bolts 13 each having one end thereto engaging a
socket 14 formed in the bolt carrying cleat while its op-
posite end is fastened to a bracket carried by the adja-
cent transverse joint, the latter being in turn secured to
the adjacent longitudinal sill, as shown.

The sockets 14 are each covered by a plate or closure
15 having an elongated slot 16 formed therein and com-
municating with the socket 14, the head of the bolt 13
being adapted to be passed through the slot 16 into the
socket 14 and thence partially rotated so as to cause the
opposite corner of the squared portion of the bolt to bear
105 against the adjacent wall of the plate on each side of
the slot 16.

The head of the bolt 13 is elongated in shape to con-
form to the shape of the slot 16 so that the bolt may be
readily introduced through said slot into the socket, 110
the shank of said bolt beneath the head thereof being provided with rounded corners 17 and squared portions 18 which bear against the opposite walls of the slot 16 when the head of the bolt is rotated within the socket 5 and serve to prevent accidental rotation of said bolt.

Secured to the lower longitudinal edge of each supporting post 8 are securing brackets 19 provided with laterally extending flanges 20 which bear against the longitudinal sills 9 and are secured thereto in any suitable manner, as by lag bolts or similar fastening devices 21. The flanges 20 are preferably of the same length and thickness as the joists 5 so that when the joists 5, thumbed down and engaged, the support of the joists may be piled one upon the other and compactly nested, as best shown in Fig. 10 of the drawings.

As a means for drawing the several sections of the flooring together after the same have been assembled there are provided a plurality of wedges 22 which bear against the adjacent longitudinal edge of the floor and also against the inclined face 23 of a stationary strip 24 secured to the joists 5 so that by moving the wedges longitudinally of the floor the several sections may be forced together.

The wedges 22 are provided with one or more vertically disposed openings or recesses 24 adapted to receive a nail or similar fastening device 25 so that after the wedges have been adjusted to force the floor sections together the fastening devices 25 may be driven into the adjacent joists thereby to lock the floor sections in adjusted position.

The joists 5 preferably extend laterally beyond the opposite longitudinal edges of the floor and secured to the projected or free ends of the joists are spaced posts or standards 26 each having its lower end provided with a loop 27 which engages the adjacent joists 5, thumbed down and engaged, the support of the joists may be piled one upon the other and compactly nested, as best shown in Fig. 10 of the drawings.

Secured to the upper or free ends of the standards 26 is a board or timber 29 which constitutes a bench or stand for the spectators, skaters, dancers, or other persons, said bench being provided with a pivoted back section 30 adapted to be folded downwardly on the seat 29 when the floor is knocked down for transportation or shipment.

Associated with the portable floor is a guard rail or closure preferably consisting of spaced posts 31 provided at their lower ends with depending loops 32 or stirrups 32 similar in construction to the stirrups 27 and secured in position on the adjacent joists by keys or wedges 32. The upper ends of the posts 31 are connected by top rails 33 each combined with or secured to the adjacent post by means of a suitable bolt and nut fastening 34. The sliding ends of the top rails 33 are fastened to the adjacent posts by clips 34 which engage the adjacent top rail sections and are held in position by bolts 35 engaging suitable nuts or plates 36, as best shown in Fig. 11 of the drawings.

The attention is here called to the fact that the stationary strip 24 is provided with spaced notches or recesses 22 for the reception of the posts or standards 31 thus forming an additional anchorage for said strip and at the same time serving to assist in supporting the posts 31 in upright position. The stationary member 24 and wedge 22 are normally covered by a wood or metal strip 23 which forms a housing for the same so as to prevent the foot from catching between the stationary strip and adjacent edge of the floor.

The intermediate portions of the posts 31 are formed with horizontally aligned recesses 35 in which is seated an intermediate rail 36, the latter being locked within the recesses 35 of the post by means of pivoted clips 37, one end of each of which is provided with a terminal hook 38 adapted to engage a stud or locking pin 39 extending laterally from the adjacent vertical edge of the post, as shown.

The floor sections 40 of the central row are preferably narrower and some of them shorter than the adjacent sections 5, and interspersed between the adjacent ends of intermediate sections 40 is one or more boxes or receptacles 41 which rest on the ground and are provided with recesses 42 for the reception of the longitudinal sills 9. The boxes or receptacles 41 are adapted to be filled with saw-dust, sand or similar material so as to form a support for a tent or canopy pole when the floor is set up for use in the open air. The boxes 41 are provided with one or more diagonal partitions 43 forming compartments 44 so that any water flowing down the sides of the pole will enter the compartments 44 and thence drain laterally and outwardly through suitable openings 45 communicating with the compartments 44, as shown. It will thus be seen that when the cover of the tent is lowered on the pole in wet weather the moisture from the top of the tent will enter the compartments and be discharged beneath the flooring so as to prevent the water from coming in contact with the floor and warping or otherwise distorting the same.

If desired, the opposite ends of the floor may also be provided with a guard rail and in order to support the end rails 46 one or more posts or standards 47 are secured to the adjacent joists 5 in any suitable manner, as by fastening devices 48, the end rails 46 being connected with the adjacent side rails by corner brackets 49.

As a means for indicating the level of the floor, some of the joists and longitudinal sills are provided with suitable spirit tubes 27 as illustrated in Fig. 14 of the drawings.

In assembling the several sections comprising the floor the sills are first laid in position on the ground or over a permanent or stationary floor when said portable floor is to be used in a building or similar structure after which the joists 7 are secured to the transverse sills by means of brackets 19. The floor sections 5 and 40 are then placed in position on the joists and adjusted longitudinally until the transverse cleats 10 bear against the joist in which position some of the cleats will be armed adjacent to each other so as to permit the operator to introduce a wrench or other suitable tool beneath the floor from one longitudinal edge of each section and adjust the nuts 12 thereby to clamp said sections in assembled position. After the sections are thus assembled the same are drawn together as to close up any cracks or spaces between said sections by introducing the wedges 22 between the stationary strip 24 and the adjacent longitudinal edge of the floor and fastening said wedges in adjusted position by driving the nails or screws 25 into the joists. When the floor is thus set up the standards are placed in position on the projecting ends of the joists and the top and interme-
diate rails connected in the manner before described so as to form a rail at the marginal edge of the floor. The seats are then positioned on the projecting ends of the joists and locked in engagement therewith by introducing the wedges 28 between the loops or stirrups 27 and the lower edges of the joists, as best shown in Fig. 3 of the drawings. When the temporary floor is laid over a permanent floor, however, the longitudinal sills are dispensed with, the weight of the temporary floor being deemed sufficient to hold it in place.

In order to knock down the device for transportation or shipment it is merely necessary to detach the seats and panel rail and subsequently release the wedges 24 and fastening bolts 11 when the floor sections may be piled one upon the other, the joists 8 being subsequently detached from the sills and disposed in superposed order, as best shown in Fig. 10 of the drawings, thus permitting the entire floor to be compactly folded for transportation or shipment.

In Fig. 15 there is illustrated a different style of stationery locking strip in which the notches or recesses 22 are disposed with and one longitudinal edge of said strip formed with a smooth continuous surface for contact with the adjacent posts or standards.

A modified form of clamping member is illustrated in Fig. 16 in which the transverse clats 10 are connected by a yoke 16, there being one or more wedges or keys 17 interposed between one end of the yoke and the adjacent cleat for forcing said clats together.

Having thus described the invention, what is claimed is:

1. A portable floor including a plurality of rows of detachable sections, the sections of each row being provided with tongue and groove connections, means connecting the opposite ends of adjacent sections for drawing said sections together, a stationary member disposed parallel with the longitudinal edge of one of the outer rows of sections and provided with spaced inclined faces, and wedges interposed between the inclined faces of the stationary member and the longitudinal edge of said outer row of sections for exerting a lateral pressure on the several rows of sections.

2. A portable floor including a plurality of rows of detachable sections, means connecting the abutting ends of the sections of each row for drawing said sections together, and dip receptacles interposed between some of the sections and having their upper and lower ends open and their side walls provided with lateral drain openings.

3. A portable floor including a plurality of sections detachably secured together and provided with tongue and groove connections, means connecting the abutting ends of adjacent sections for drawing said sections together, receptacles interposed between some of the sections and locked in position by engagement with said sections, liquid receiving compartments formed in said receptacles and drain openings communicating with the compartments for discharging the liquid therefrom.

4. A portable floor including supporting joists, a plurality of detachable floor sections supported on the joists and provided with transverse cleats adapted to bear against said joists, fastening devices connecting the abutting ends of adjacent floor sections, and anchoring members secured to some of said floor sections.

5. A portable floor including longitudinal supporting sills, spaced transverse joints mounted on the sills, laterally extending brackets carried by the joints, said brackets being secured to the sills, a plurality of separable floor sections bearing against the joints and provided with tongue and groove connections, and anchoring members depending from some of the floor sections and secured to the adjacent brackets.

6. A portable floor including longitudinal sills, spaced supporting joists mounted on the sills, a plurality of detachable floor sections resting on the joists and provided with transverse cleats, the abutting ends of adjacent floor sections being provided with tongue and groove connections, and anchoring members secured to some of the joints and engaging the adjacent joints.

7. A portable floor including longitudinal sills, spaced supporting joists mounted on the sills and provided with laterally extending brackets for engagement with said sills, a plurality of floor sections being engaged against the joints and provided with transverse cleats adapted to engage adjacent joints, the fastening ends of adjacent floor sections being provided with tongue and groove connections, said brackets formed in some of the transverse cleats and being secured to said cleats and adapted to engage the adjacent joints.

8. A portable floor including spaced joists, a plurality of floor sections bearing against the joints and provided with transverse cleats adapted to bear against adjacent joints, horizontally disposed brackets connecting the cleats of adjacent sections, there being sockets formed in some of the transverse cleats, plates covering said sockets and having elongated slots formed therein, and anchoring members depending from some of the cleats and provided with enlarged heads being secured in said sockets.

9. A portable floor including longitudinal sills, spaced supporting joists mounted on the sills, a plurality of floor sections detachably secured to the joints and provided with tongue and groove connections, the free ends of the joints being extended laterally beyond the opposite longitudinal edges of the floor, and seats secured to the free ends of the joints.

10. A portable floor including longitudinal sills, spaced supporting joists mounted on said sills, a plurality of floor sections engaging the joints and having their abutting ends provided with tongue and groove connections, the opposite ends of the joints being extended laterally beyond the adjacent longitudinal edges of the floor, posts extending vertically from the free ends of the joints, and seats secured to the posts and engaging the adjacent joints, seats secured to the posts and wedges interposed between the abutments and the adjacent joints for locking the posts against lateral displacement.

11. A portable floor including spaced joists, a plurality of detachable floor sections bearing against the joints and having their abutting ends provided with tongue and groove connections, said joints being extended laterally beyond the opposite longitudinal edges of the floor, spaced standards secured to the marginal edge of the floor, guard rails connecting the standards, posts spaced laterally from the standards, abutments carried by the posts and engaging the joists, seats secured to the posts and provided with folding backs, and wedges interposed between the abutments and adjacent joints for locking the posts against accidental displacement.

In testimony that I claim the foregoing as my own, I have hereunto affixed my signature in the presence of two witnesses.

FRANK R. YOUNG.

Witnesses:
WALTER BROWNLEE.
J. E. CORBIN.