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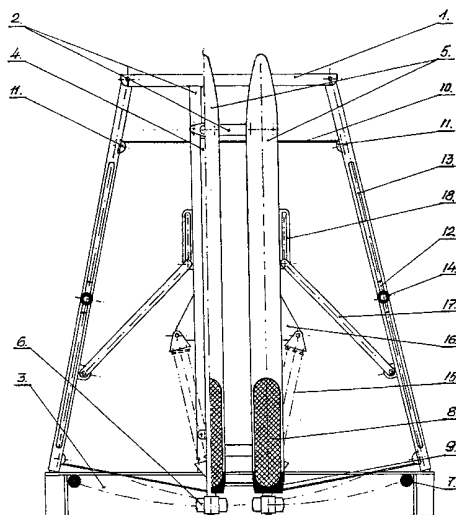
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(54) Title: **SKI TRAINING DEVICE**



(57) Abstract: Ski trainer consists of the frame (1), in the shape of a trapeze, braced with longitudinal and cross connecting members (2) and closed at the bottom by a base constituting the arc-shaped running board (3). With the frame (1) are connected pivotingly arms (4) of skis (5), ending in their lower part in wheels (6) rolling upon the running board (3). Also to arms (4) in their rear part cords (10) are fastened, which farther inside frame (1) profiles run on pulleys (11) forming a closed-circuit. In frame (1) sides slides (12) connected to the cord (10) are situated, and mounted upon slides (12) in the channels (13) are - sockets (14) designed for inserting the ski stick tips therein. Moreover in the arm (4) axes, in their lower parts, springs (15) are mounted, other opposite ends of which are connected with outriggers (16) of elongated connecting members (2). Skis (5) have also profiled spots (8) designed for feet placing with corners (9), and upon the running board (3) stops (7) are situated, determining extreme position of wheels (6).



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SKI TRAINING DEVICE

[DESCRIPTION]

5 The subject of the invention is a device for ski exercise, permitting learning and training of ski turns under roof, irrespective from the season and snow conditions.

Until now - despite existence of a large number of various sports equipment - there is a shortage of ski exercise
10 devices permitting training all round the year, i.e. irrespective of the ski season and snow conditions. The above problem is solved by the ski trainer being the subject of the present invention.

The substance of the invention consists in that the ski
15 trainer has a trapeze-shaped frame braced with longitudinal and cross connecting members and closed at the bottom by a base constituting an arc-shaped running board. Arms are situated under ski surface and connected with this frame. In their lower part they end in wheels rolling upon the
20 running board across the ski axis. Furthermore cords are fastened in the rear part to the arms which farther - inside the frame profile - run on pulleys forming a closed circuit. Whereas in the frame sides of a square shaped cross section slides connected to the cords are situated,
25 and mounted upon slides in the channels are sockets designed for inserting the ski stick tips there. Moreover in the arm axes - in their lower part springs are mounted - and their other ends are connected with outriggers of elongated, central frame connecting members.

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Skis feature the feet resting place - profiled and with
quarters; and upon the running board, where wheels are
moving, there are blockades restricting extreme wheel
position thereby extreme ski turn. Furthermore - in order
5 to permit device folding - levers are connected with frame
sides and their other ends join the guides fixed to the
longitudinal frame joining members.

So executed device allows learning and training of ski
turns, parallel turns in particular, in accordance with
10 skiing technique rules and regardless of the season.

Thanks to combined ski and sticks motions the device
enforces the proper position at turns training. Whereas the
way of connecting the upper ski part with the arm and the
lower part through wheels - with the running board shaped
15 in the form of an arc - permits ski turns in longitudinal
axis within ski resilience what corresponds to ski edging
during skiing. This motion ensures correct legwork in
turns.

Arc shaped running board simulates skiing conditions across
20 a slope with a possibility of loading the outer ski and
turning according to skiing technique.

Repeated turning using the described device makes possible
acquiring habits, which transferred to natural skiing
conditions facilitate doing correct parallel turn and thus
25 enable proper preparation of the exercising person to the
ski season, increasing safety and reducing accident rate,
also enabling achieving better results in possible ski
contests.

The invention in a exemplary execution is shown on a
30 drawing, where Fig.1 - shows the top view of the device

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with partly shown arm and elongated connecting member, and Fig.- 2 demonstrates the view of the device frame base with the shape of the arc-shaped running board shown.

As shown on the drawing - the device constituting the invention consists of a frame 1 in a shape of the trapeze and braced with central elongated and transverse connecting members 2; at the same time this trapeze in its lower part is closed by a base constituting a running board 3. Arms 4 of skis 5, situated underneath the skis 5 are connected articulatingly with the frame 1.

Arms 4 in their lower part end in wheels 6 rolling transversely to skis 5 axis upon the running board 3 shaped in the form of an arc. Extreme positions of wheels 6 are determined by rubber stops 7. Skis 5 have profiled determined spots 8 with corners 9 for placing feet. Also in the skis 5 rear part to arms 4 cords 10 are fixed, which farther - inside frame 1 profiles run on pulleys 11 forming closed circuit. Whereas slides 12 are situated in frame 1 sides of a square cross-section and connected with the cord 10, and sockets 14, designed for inserting stick tips there, are mounted upon slides 12 in channels 13 along frame 1 sides.

In arm 4 axes being simultaneously ski 5 axes to arms 4 in their lower part springs 15 are mounted, connected with their other ends to outriggers 16 of central, elongated connecting members 2.

Furthermore with frame 1 sides levers 17 are connected, which by their other opposite ends join guides 18 fixed to elongated connecting members 2 - what permits the device folding into a small, easy to store parcel. The device

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operation consists in that following feet placing in
determined places 8 on skis 5 and placing ski sticks in
sockets 14 - the exercising person leaning in the chosen
direction - with possible supporting upon sticks placed in
5 seats 14 - causes transverse inclination of skis 5 and
spring 15 tightening, which in turn facilitate return to
neutral position or inclination into opposite direction.
This motion is made possible by mounted in rear parts of
ski 5 arms 4 wheels 6, moving upon profiled running board
10 3.

At the same time the transverse ski 5 inclination produces
via cords 10 the opposite motion of slides 12 together with
sticks inserted into sockets 14.

This is the motion consistent with the skiing technique and
15 it is repeated in cycles throughout the exercise. Upon
finishing the exercise - attempting to fold the device -
the running board 3 shall be removed from the guides
situated in elongated connecting embers 2 of the frame 1
and then levers 17 moved into extreme top position on
20 guides 18.

[CLAIMS]

1. The ski trainer characterised in that it consists of the trapeze-shaped frame (1) braced with longitudinal and cross connecting members (2) and closed at the bottom by a base constituting an arc-shaped running board (3),
5 whereas connected with this frame (1) are arms (4) of skis (5), situated under ski (5) surface and ending in their lower part in wheels (6) rolling upon the running board (3) across the ski (5) axis and also to the arms
10 (4) in the rear part cords (10) are fastened, which farther inside frame (1) profiles run on pulleys (11) forming a closed circuit, whereas in frame (1) sides of a square-shaped cross-section slides (12) connected to
15 the cord (10) are situated, and mounted upon slides (12) in the channels (13) are - sockets (14) designed for inserting the ski stick tips therein, and in the arm (4) axes, in their lower parts, springs (15) are mounted and their other opposite ends are connected with outriggers
20 (16) of elongated connecting members (2).
2. Ski trainer as claimed in claim 1, characterised in that the skis (5) have profiled spots (8) designed for feet placing with corners (9) and upon the running board (3) stops (7) are situated, determining extreme position of
25 wheels (6).
3. Ski trainer as claimed in claim 1, characterised in that with the frame (1) sides levers (17) are connected, which through their opposite ends join the guides (18) fixed onto elongated connecting members (2), in order to
30 facilitate folding the device after finishing training.

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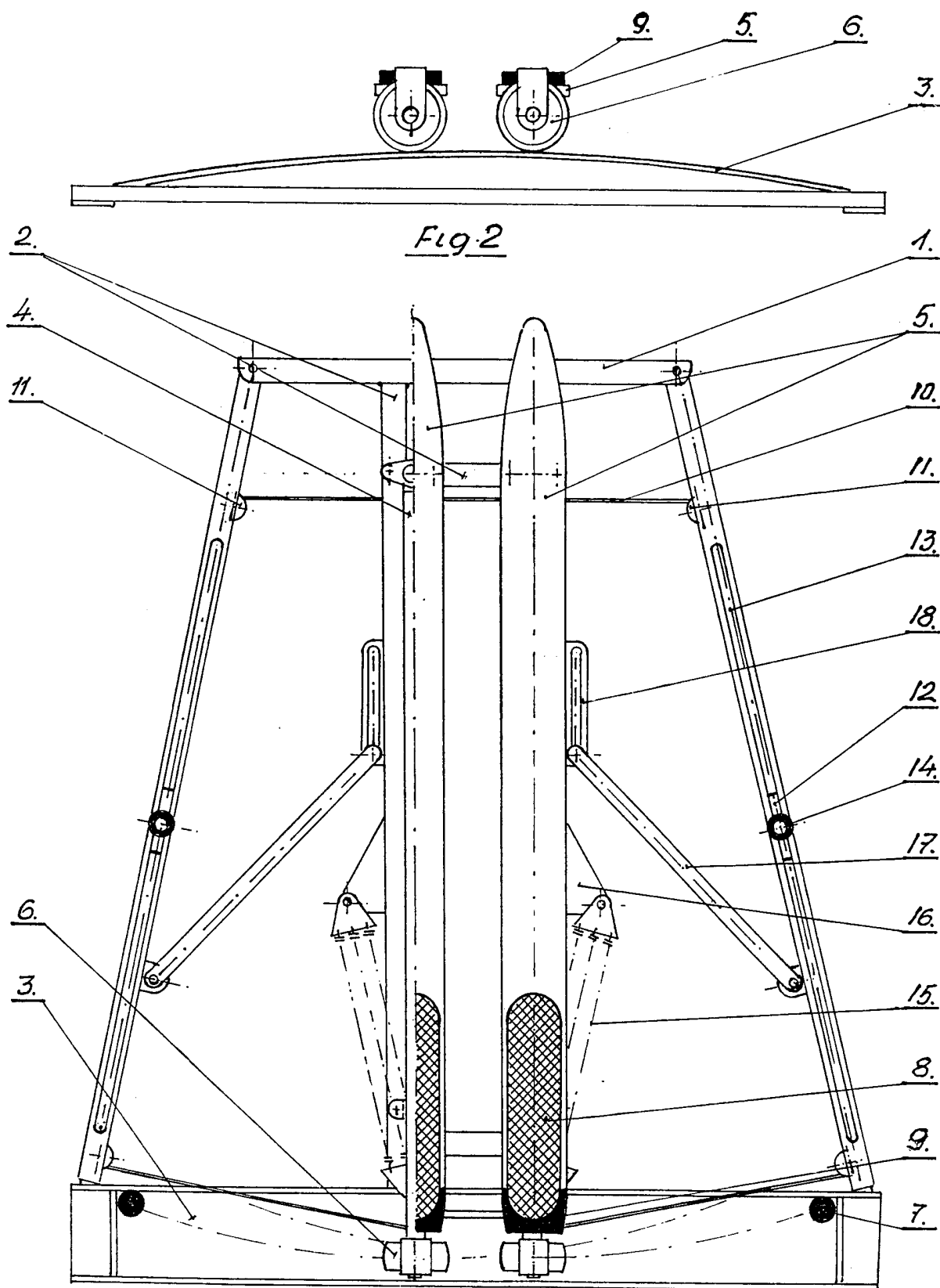


Fig. 1

INTERNATIONAL SEARCH REPORT

Inter: nal Application No

PCT/IB 00/00012

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 A63B69/18

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A63B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	FR 2 692 800 A (RÖMER) 31 December 1993 (1993-12-31) page 6, line 1 -page 9, line 8; figures 1-7	1,2
A	EP 0 296 129 A (COLOMBO) 21 December 1988 (1988-12-21) page 2, line 46 -page 5, line 18; figures 1-4	1,2
A	US 3 650 528 A (NATTERER) 21 March 1972 (1972-03-21) column 1, line 61 -column 3, line 32; figures 1-11	1,2
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Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents :

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/IB 00/00012

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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