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(54) **FOLDABLE BASKETBALL SHOOTING DEVICE**

(52) **U.S. Cl. 473/481**

(57) **ABSTRACT**

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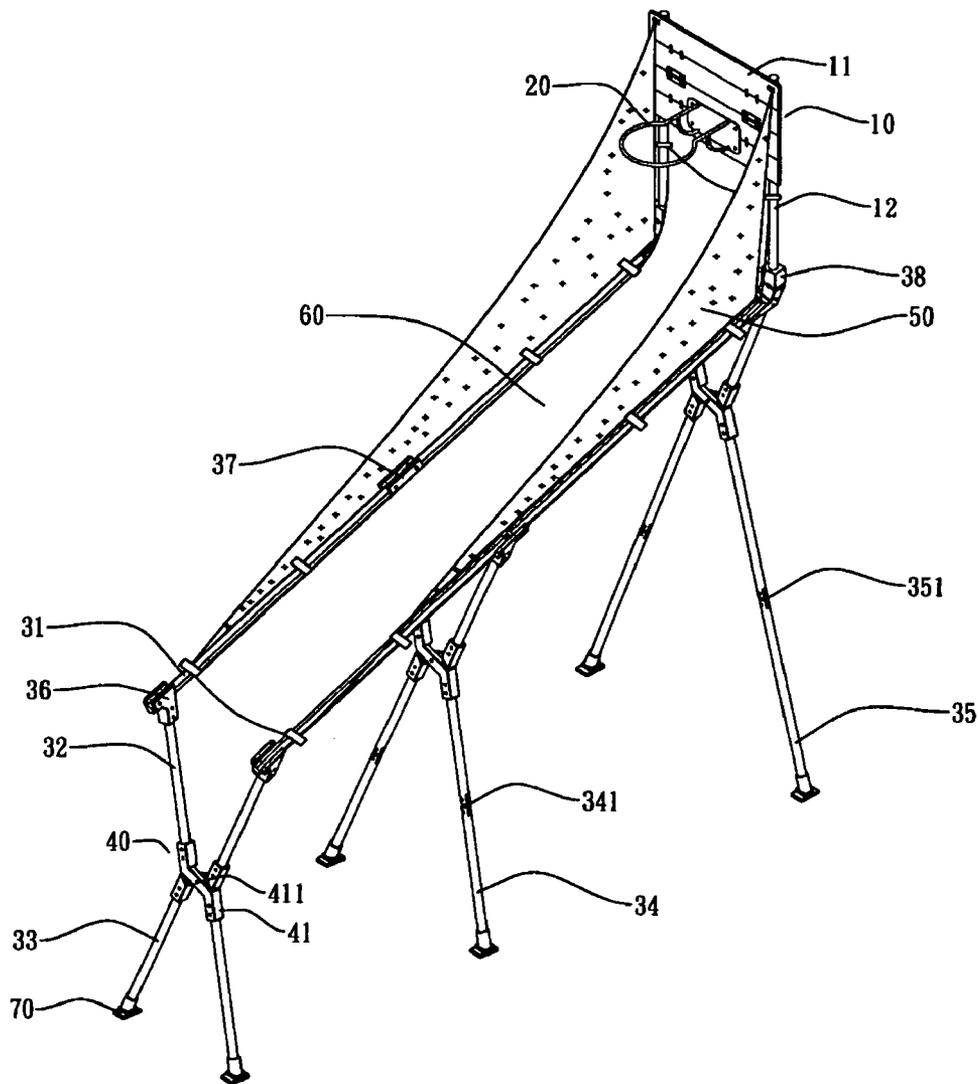
The present invention relates to a foldable basketball shooting device which comprises a backboard, a hoop, foldable frame structures, a pair of side fabric guards and a fabric bottom. The backboard is composed of four pivotally connected rectangular boards, two upright frame bars in the back and a hoop engaged in the front thereof. The foldable frame structures include side frame bars, upper supporting legs, first, second and lower supporting legs accompanied with collapsible joints and crossed connecting joint members wherein said side frame bars, upper supporting legs, first, second and third pair of lower supporting legs are respectively in different length. The side fabric guards are respectively extending upwardly from the side frame bars and inclining correspondingly toward two side edges of the backboard for preventing basketballs from dropping off. Catching returned basketballs is provided with said fabric bottom mounted to the side frame bars.

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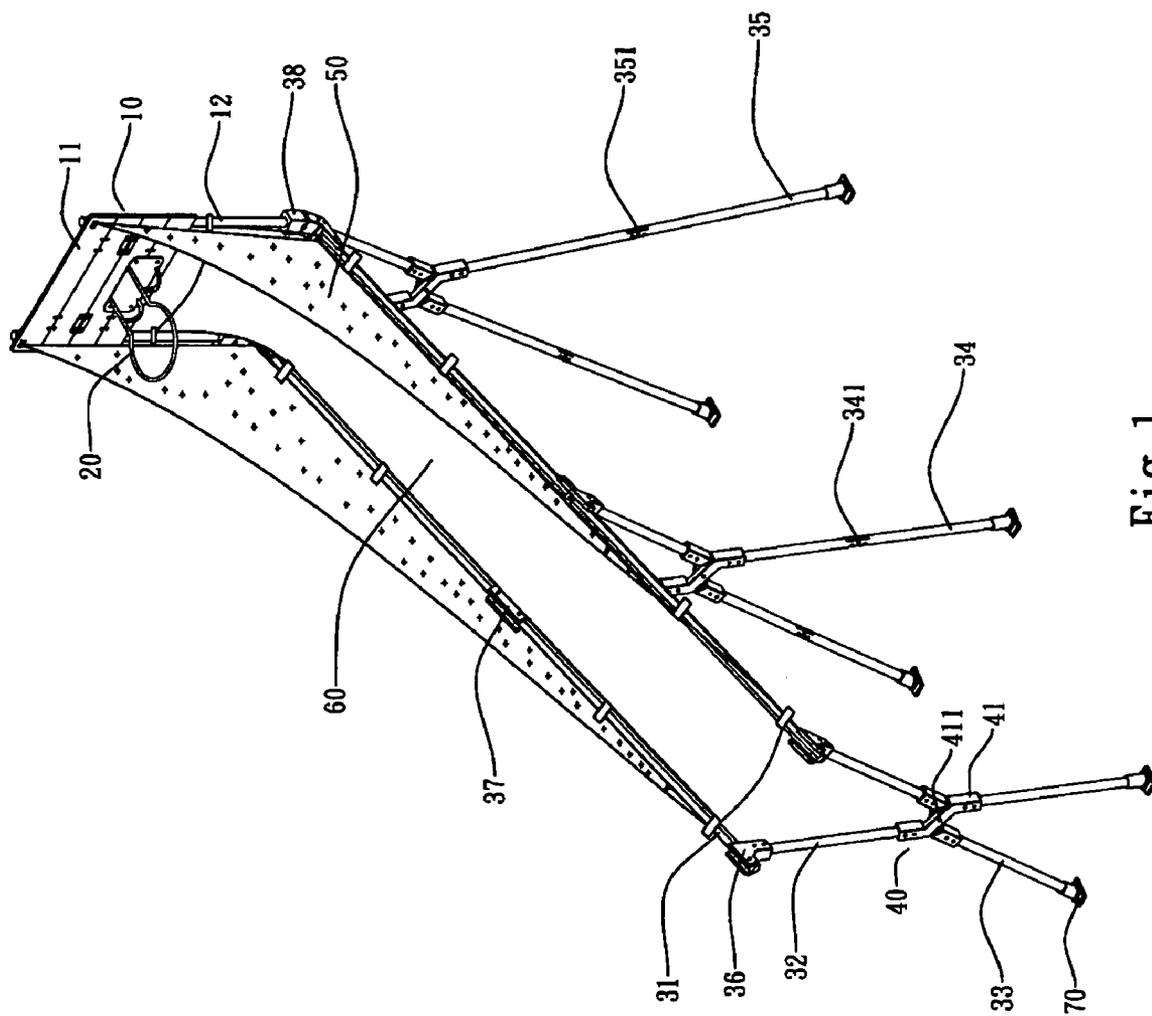


Fig. 1

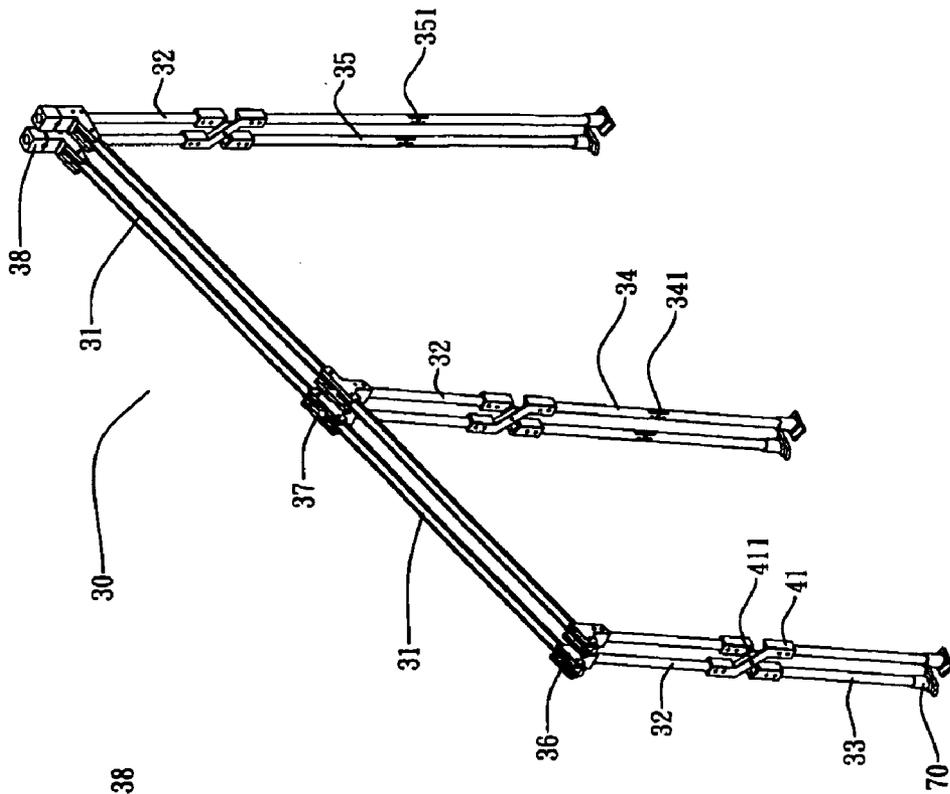


Fig. 2-1

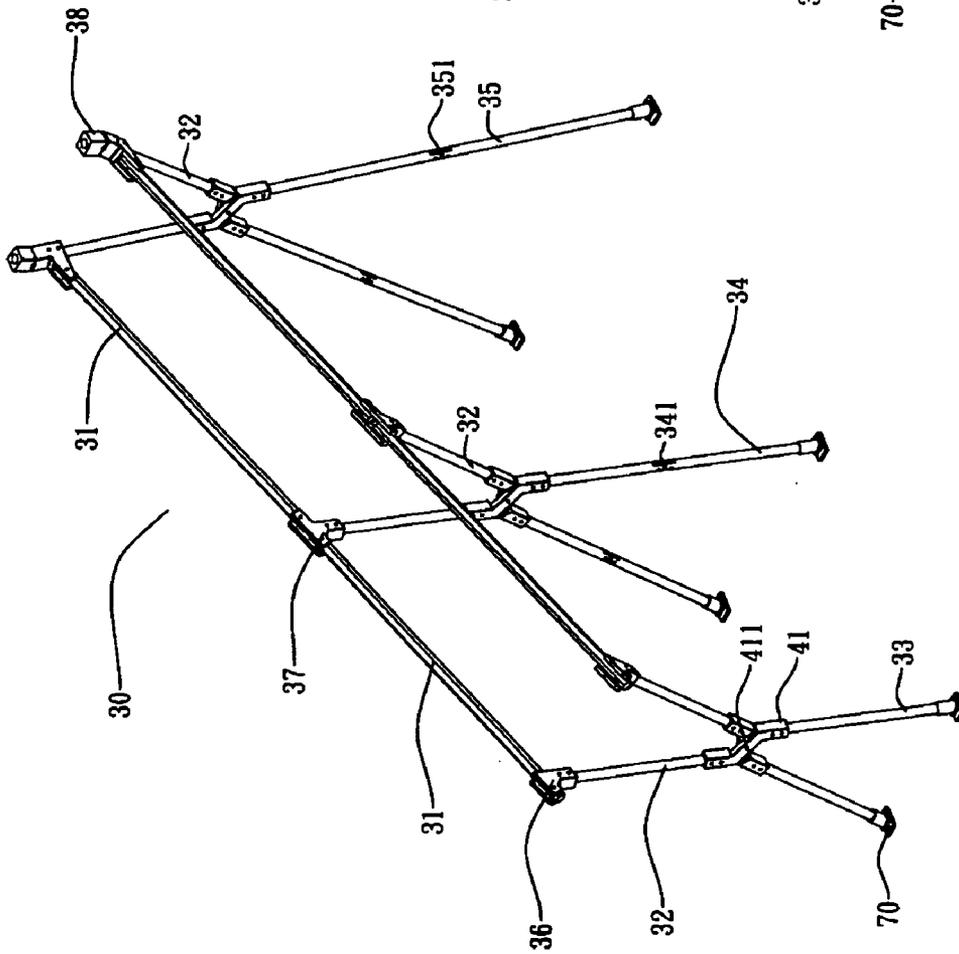


Fig. 2

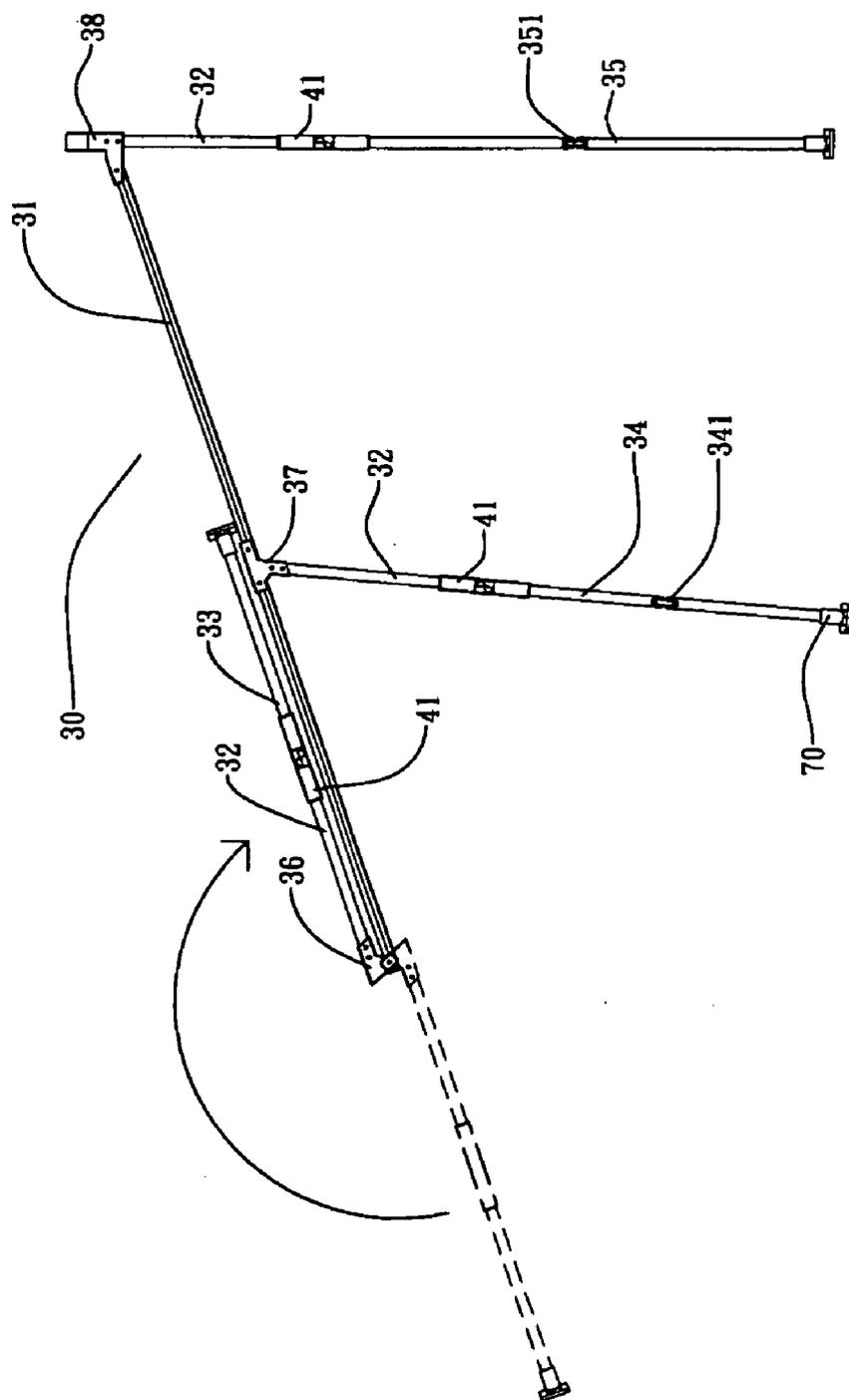


Fig. 3

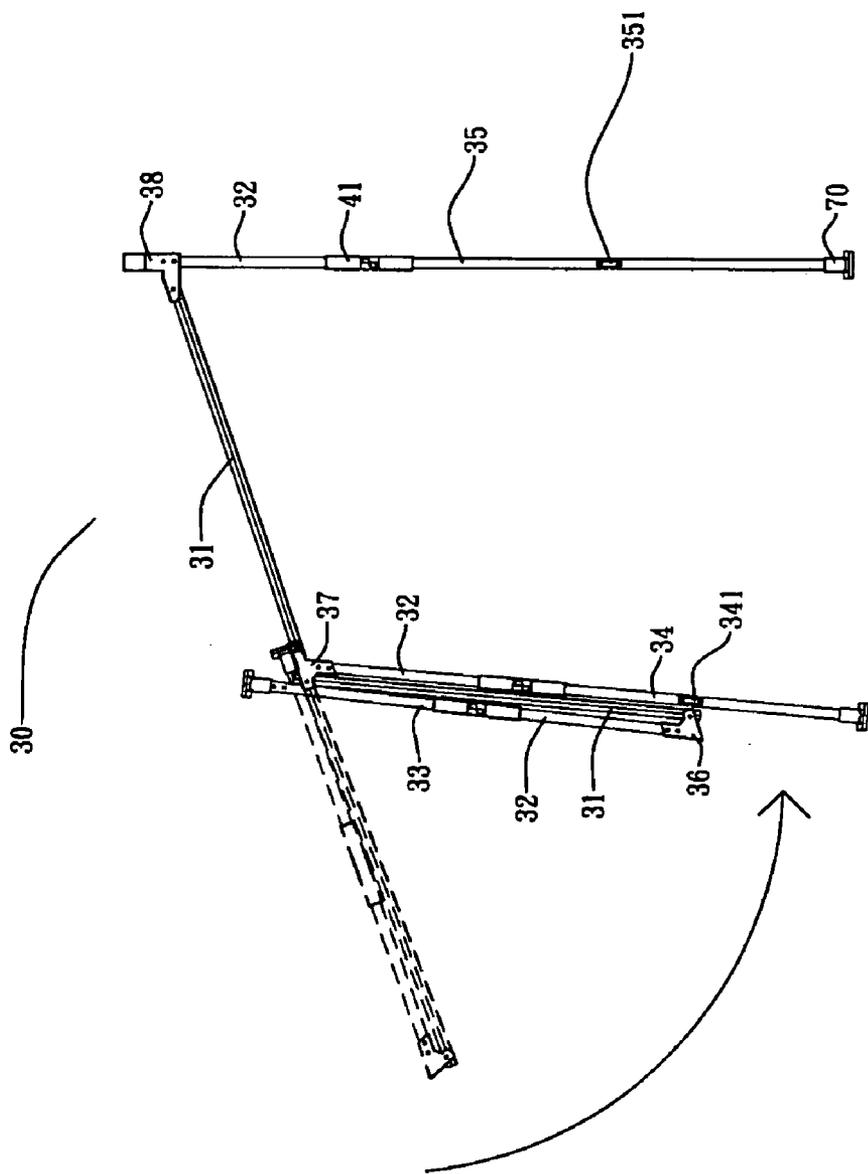


Fig. 4

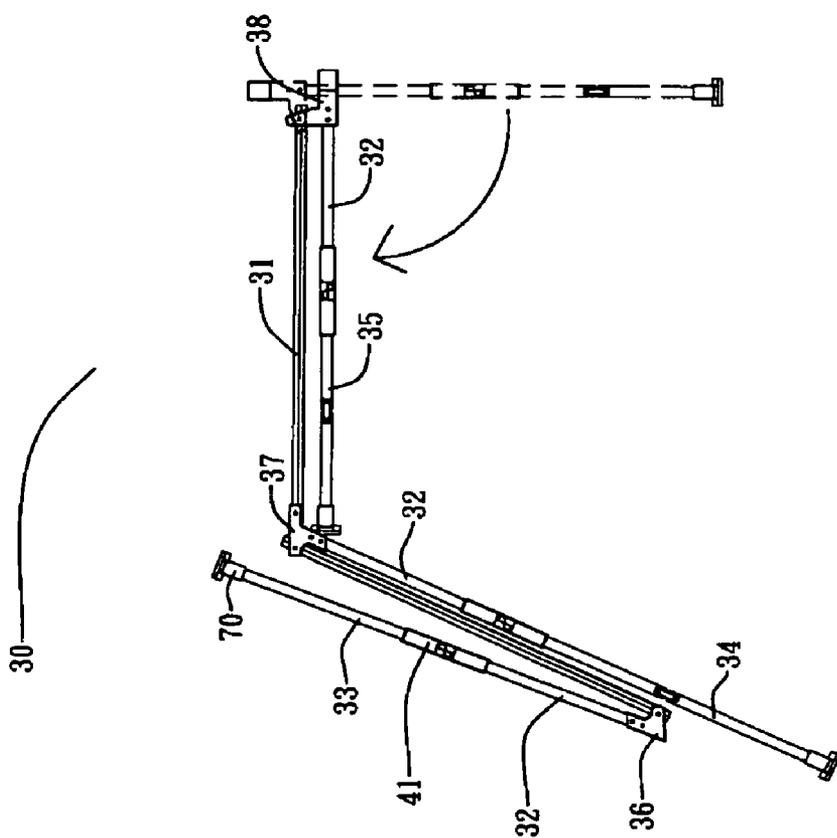


Fig. 5

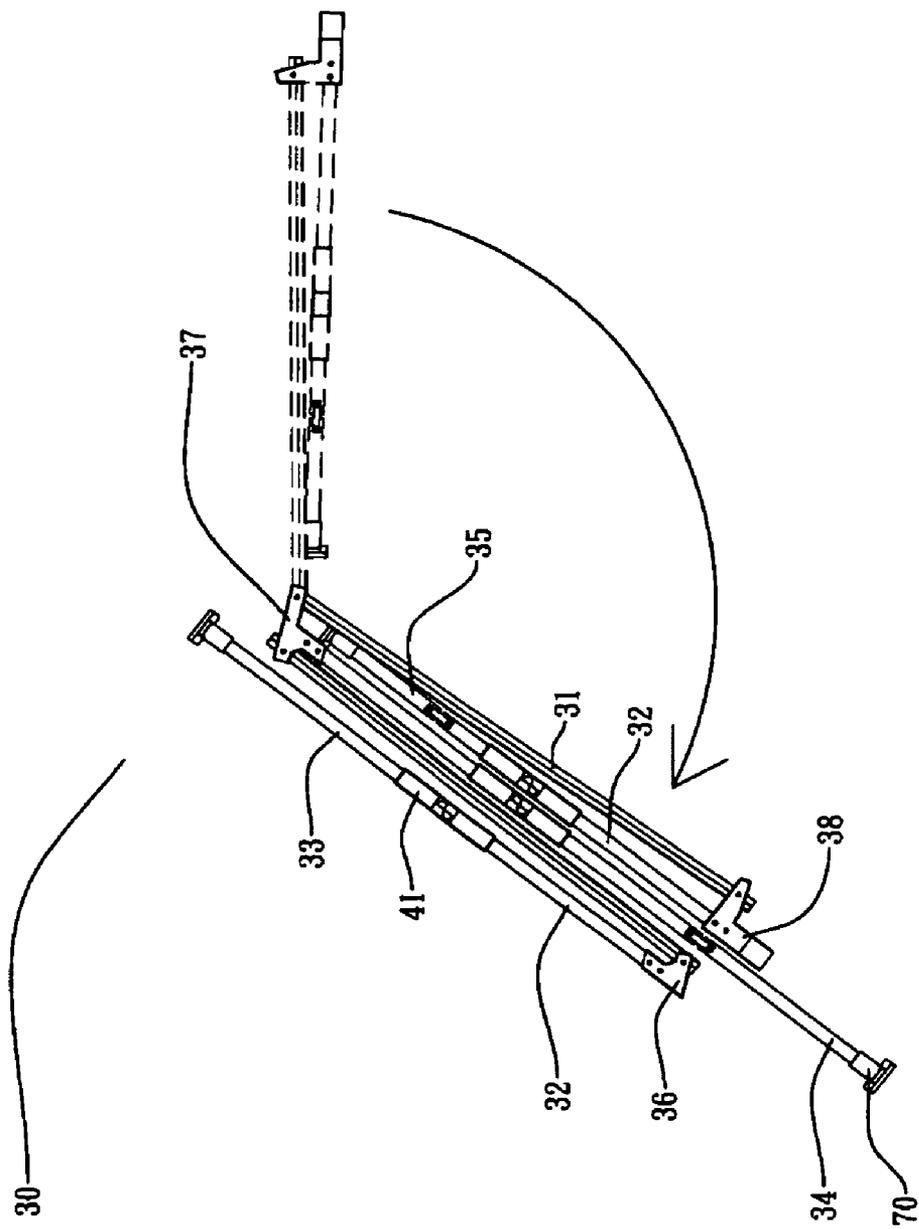


Fig. 6

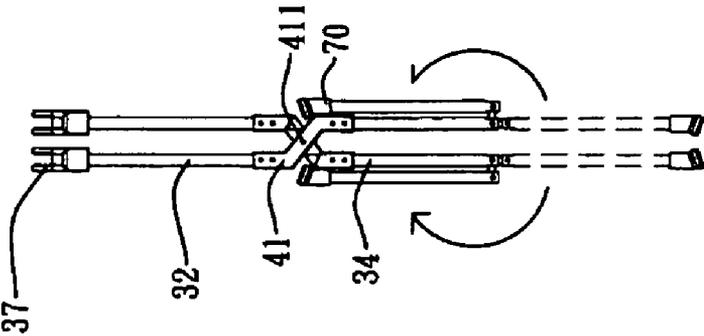


Fig. 7-1

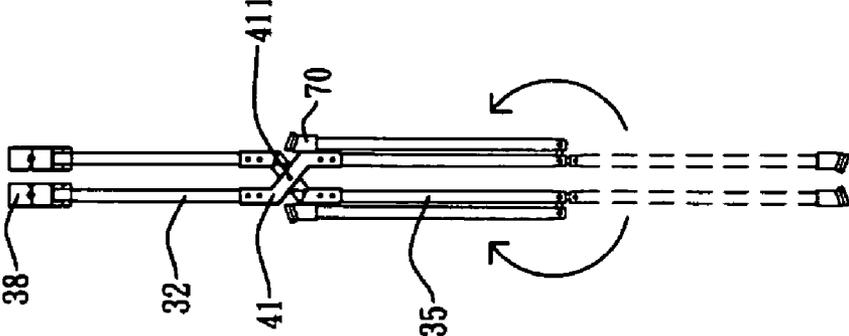


Fig. 7

FOLDABLE BASKETBALL SHOOTING DEVICE

BACKGROUND OF THE PRESENT INVENTION

[0001] 1. Field of the Invention

[0002] The present invention relates to an arcade-type basketball shooting device, more particularly to a foldable basketball shooting device which is used outdoor and easily unfolded to a ready-for-play position or folded into a storage position.

[0003] 2. Description of Related Invention

[0004] Conventionally, the basketball shooter device comprises merely a basket and a backboard fixedly hanging on a stable object making it unable to be portable. Additionally, another improvement provides multi-sectional combination of frame structure which must be assembled or detached one by one of each section thereof, more particularly, most users find such improvement inconvenient and unable to complete the assembling and folding process alone.

SUMMARY OF THE PRESENT INVENTION

[0005] In view of the foregoing disadvantages, the present invention relates to an improvement of a foldable arcade basketball shooting device which mainly utilizes a hoop, a backboard, foldable frame structures, two side fabric guards and a fabric bottom. The present invention enables the rapid process of being extended to ready-for-play position and folded into a storage position to scale down the size by providing collapsible joints pivotally connected among each frames.

BRIEF DESCRIPTION OF THE DRAWINGS

[0006] FIG. 1 is a perspective view in accordance with the preferred embodiment of the present invention.

[0007] FIG. 2 is a perspective view of the frame structure disclosed in FIG. 1 in accordance with the preferred embodiment of the present invention.

[0008] FIG. 2-1 is a perspective view of the frame structure in folded position in accordance with the preferred embodiment of the present invention.

[0009] FIG. 3 is a schematic drawing of the frame structure of the first folded position in accordance with the preferred embodiment of the present invention.

[0010] FIG. 4 is a schematic drawing of the frame structure of the second folded position in accordance with the preferred embodiment of the present invention.

[0011] FIG. 5 is a schematic drawing of the frame structure of the third folded position in accordance with the preferred embodiment of the present invention.

[0012] FIG. 6 is a schematic drawing of the frame structure of the fourth folded position in accordance with the preferred embodiment of the present invention.

[0013] FIG. 7 is a schematic drawing of the fifth frame structure in folded position in accordance with the preferred embodiment of the present invention.

[0014] FIG. 7-1 is a schematic drawing of the fourth frame structure in folded position in accordance with the preferred embodiment of the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

[0015] Referring to FIGS. 1 to FIG. 7-1 of the drawings, the present invention includes a backboard (10), a hoop (20),

foldable frame structures (30), a pair of side fabric guards (50) and a fabric bottom (60), wherein the hoop (20) is secured to the backboard (10) and the backboard (10) which is installed with a pair of vertical and parallel upright frame bars (12) in the back thereof utilizes four foldable boards (11) presenting in rectangular shape when in ready-for-play position.

[0016] Foldable frame structures (30) include two pairs of side frame bars (31), three pairs of upper supporting legs (32), first pair of lower supporting legs (33), second pair of lower supporting legs (34), and third pair of lower supporting legs (35), accompanied with first pair of collapsible joints (36), second pair of collapsible joints (37), third pair of collapsible joints (38) and three crossed connecting joint members (40), wherein the side frame bars (31), the upper supporting legs (32), the first, second and the third pair of lower supporting legs (33, 34, 35) are totally in different length of cylinder bars respectively. More particularly, the length of the first pair of lower supporting legs (33) are shorter than the second pair of lower supporting legs (34) which are sequentially shorter than the third pair of lower supporting legs (35), wherein three pairs of the lower supporting legs (33, 34, 35) are suitably and respectively engaged with three pairs of the upper supporting legs (32) by utilizing three crossed connecting joint members (40) respectively. At the bottom of each pair of lower supporting legs (33, 34, 35) are installed with base plates (70). Two pairs of side frame bars (31) are pivotally connected with each other by the second pair of collapsible joints (37) there between. Each pair of upper supporting legs (32) are respectively engaged with the side frame bars (31) by pivotally connected with the first, second and third pairs of collapsible joints (36, 37, 38). First pair of intra-leg foldable joints (341) is relatively provided in the middle of the second pair of supporting legs (34), and second pair of intra-leg foldable joints (351) are relatively provided in the middle of the third pair of supporting leg (35). Three crossed connecting joint members (40) are respectively composed of two plates (41) which have pin holes (411) correspondingly located at the crossed section thereof and pivotally engaged with each other.

[0017] The function of preventing basketballs from dropping off is provided by a pair of side fabric guards (50) and the fabric bottom (60), with the pair of side fabric guards (50) respectively inclining from the distal to the proximate end of the side frame bars (31) by extending upwardly from the side frame bars (31) and suitably attached to both side edges of the backboard (10). As for catching the returned basketballs, it is permitted by the fabric bottom (60) attached to and extending along inner edges of the side frame bars (31) from one end to another and up to the edges of the backboard (10)

[0018] The backboard (10) comprises four foldable boards (11) being pivotally mounted to each other by providing locking plates installed among each of the foldable boards (11). Two upright frame bars (12) are suitably attached to the back of the backboard (10) and each of them is mounted on third pair of collapsible joints (38).

[0019] The storage position is provided by pulling out the upright frame bars (12) from the third pair of collapsible joints (38) and removing the backboard (10) along with detaching the hoop (20) therefrom. Further, each side frame bars (31) is pivotally pressed inwardly against each other, together with three pairs of collapsible joints (36, 37, 38), each pair of the upper supporting legs (32) and three pairs of lower supporting legs (33, 34, 35). The upper supporting legs (32) are pivotally folded upwardly leaning on the side frame

bars (31) against the first pair of collapsible joints (36). The section of side frame bars (31) between the first and second pair of collapsible joints (36, 37) is pivotally folded downward leaning on the upper supporting legs (32) and the first pair of lower supporting legs against the second pair of collapsible joints (37). The lower ends of third pair of lower supporting legs (35) are outwardly folded in half leaning on each other against the intra-leg foldable joints (351). The upper supporting leg (32) is pivotally folded toward the second pair of lower supporting leg (34) against the third pair of collapsible joint (38). The side frame bars (31) positioned between the second and the third pair of collapsible joints (37, 38) are bended downwardly leaning on the upper supporting legs (32) and the second pair of lower supporting legs (34) against the third collapsible joint (38). Eventually, the end of the second pair of lower supporting legs (34) is folded outwardly in half against the intra-leg foldable joint (341) so as to complete the folding process into storage position.

What is claimed is:

1. A foldable basketball shooting device, comprising: a backboard, a hoop, foldable frame structures, a fabric bottom and a pair of side fabric guard, wherein said backboard is composed of four rectangular foldable boards having two upright frame bars installed at the back and said hoop mounted to the front thereof; said foldable frame structures includes two pairs of side frame bars, three pairs of upper supporting legs, first pair of lower supporting legs, second pair of lower supporting legs and third pair of lower supporting legs accompanied first pair of collapsible joints, second pair of collapsible joint, third pair of collapsible joints and three crossed connecting joint members wherein said side frame bars, upper supporting legs, first, second and third pair

of lower supporting legs are in different length; said pair of side fabric guards are extending upwardly and inclining from the distal to proximal end of said pairs of side frame bars correspondingly to two side edges of said backboard for preventing basketballs from dropping off; and said fabric bottom is mounted between said pairs of side frame bars for catching returned basketballs.

2. A foldable basketball shooting device, as recited in claim 1, wherein said two pairs of side frame bars are pivotally connected with each other by said second pair of collapsible joints, said first, second and third pair of upper supporting legs are pivotally mounted to said frame bars respectively against said first, second and third pair of collapsible joints, said first pair of lower supporting legs is shorter than said second pair of supporting legs which are shorter than said third pair of supporting legs in sequent; first pair of intra-leg foldable joints are pivotally installed on the relative middle position of said second pair of lower supporting legs respectively; second pair of intra-leg foldable joints are pivotally installed on the relative middle position of said third pair of lower supporting legs respectively; and three crossed connecting joint members are relatively engaged between said first, second and third pair of lower supporting legs.

3. A foldable basketball shooting device, as recited in claim 1, wherein said crossed connecting joint is composed of two connecting plates which respectively have pin holes correspondingly located at the crossed section thereof and pivotally engaged with each other.

4. A foldable basketball shooting device, as recited in claim 1, wherein said third pair of collapsible joints permits the head portion thereof pivotally folded laterally.

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