

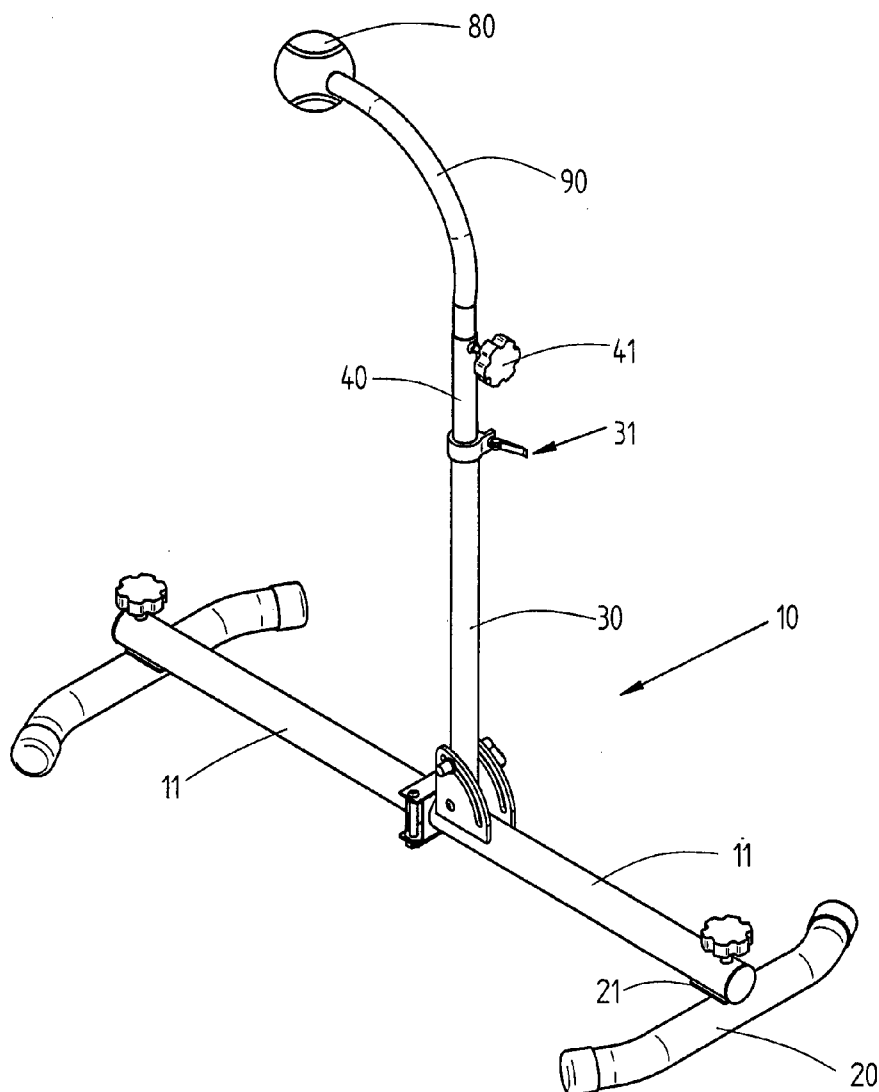


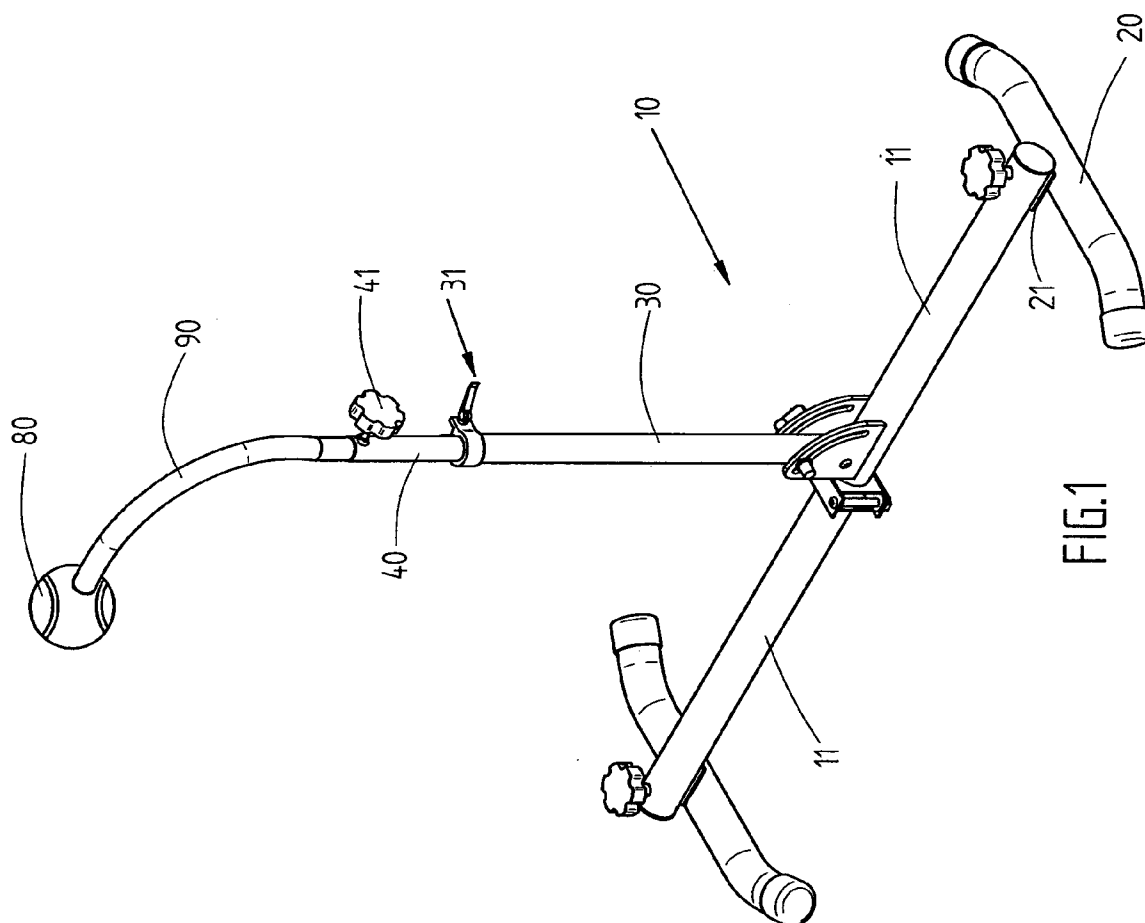
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(19) **United States**(12) **Patent Application Publication** (10) **Pub. No.: US 2006/0035729 A1****Wang**(43) **Pub. Date:****Feb. 16, 2006**(54) **STRIKE TRAINER**(52) **U.S. Cl.** 473/417; 473/423(76) **Inventor:** **Ling-Wan Wang**, Tanzih Township
(TW)(57) **ABSTRACT**

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A strike trainer includes a main frame adapted to abut against a supporting surface and a striking device mounted on a top portion of the main frame. The strike device includes a weighted element secured received in the top portion of the main frame and a resilient member having a first end engaged to a lower end of the weighted element. A rope has a first end securely connected to a second end of the resilient member and a resilient post having a first end secured in the top portion of the main frame and sleeved on the rope. A ball is secured on a second end of the rope after extending through the resilient post and abuts a second end of the resilient post due to a restitution force of the resilient member.

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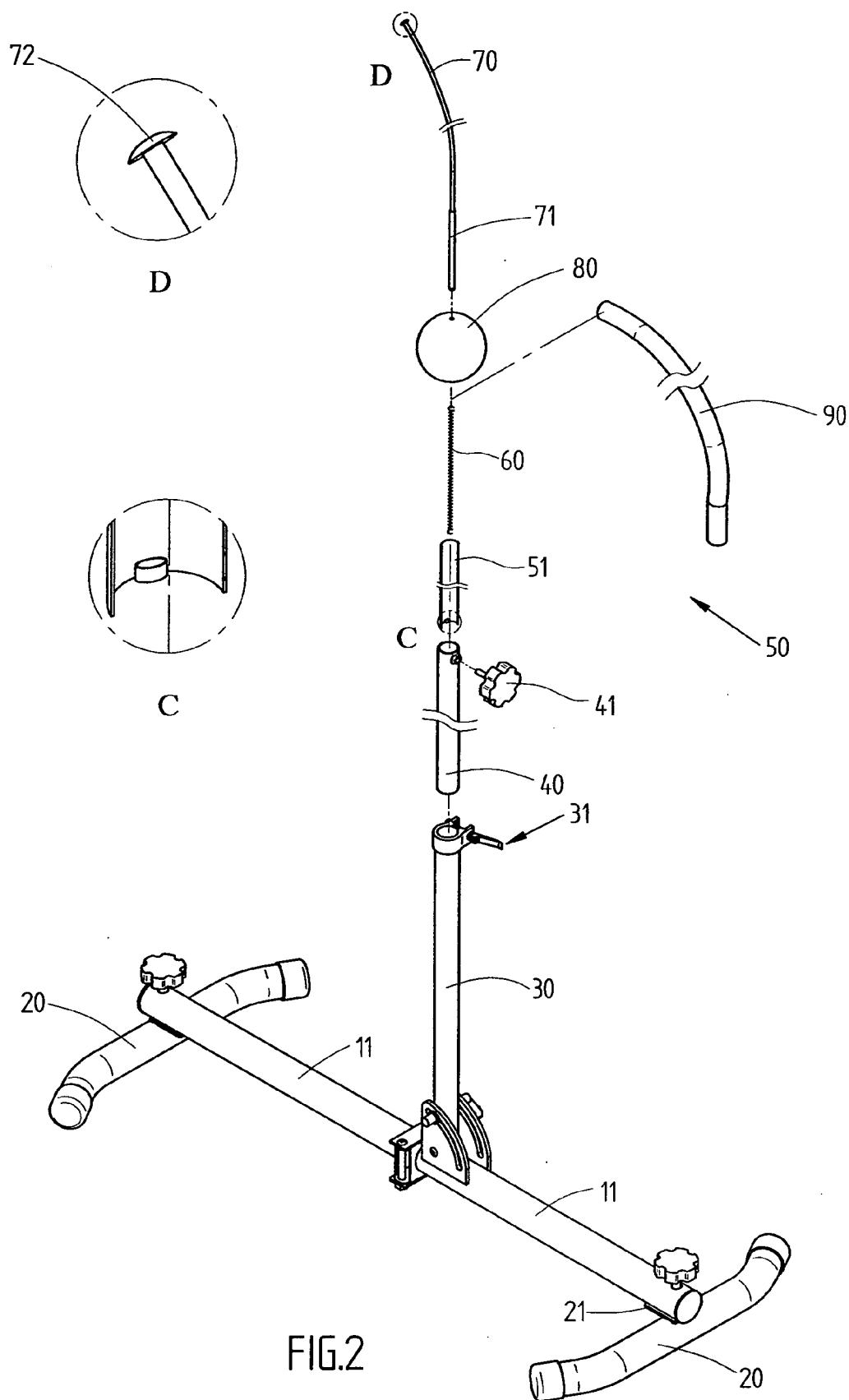


FIG.2

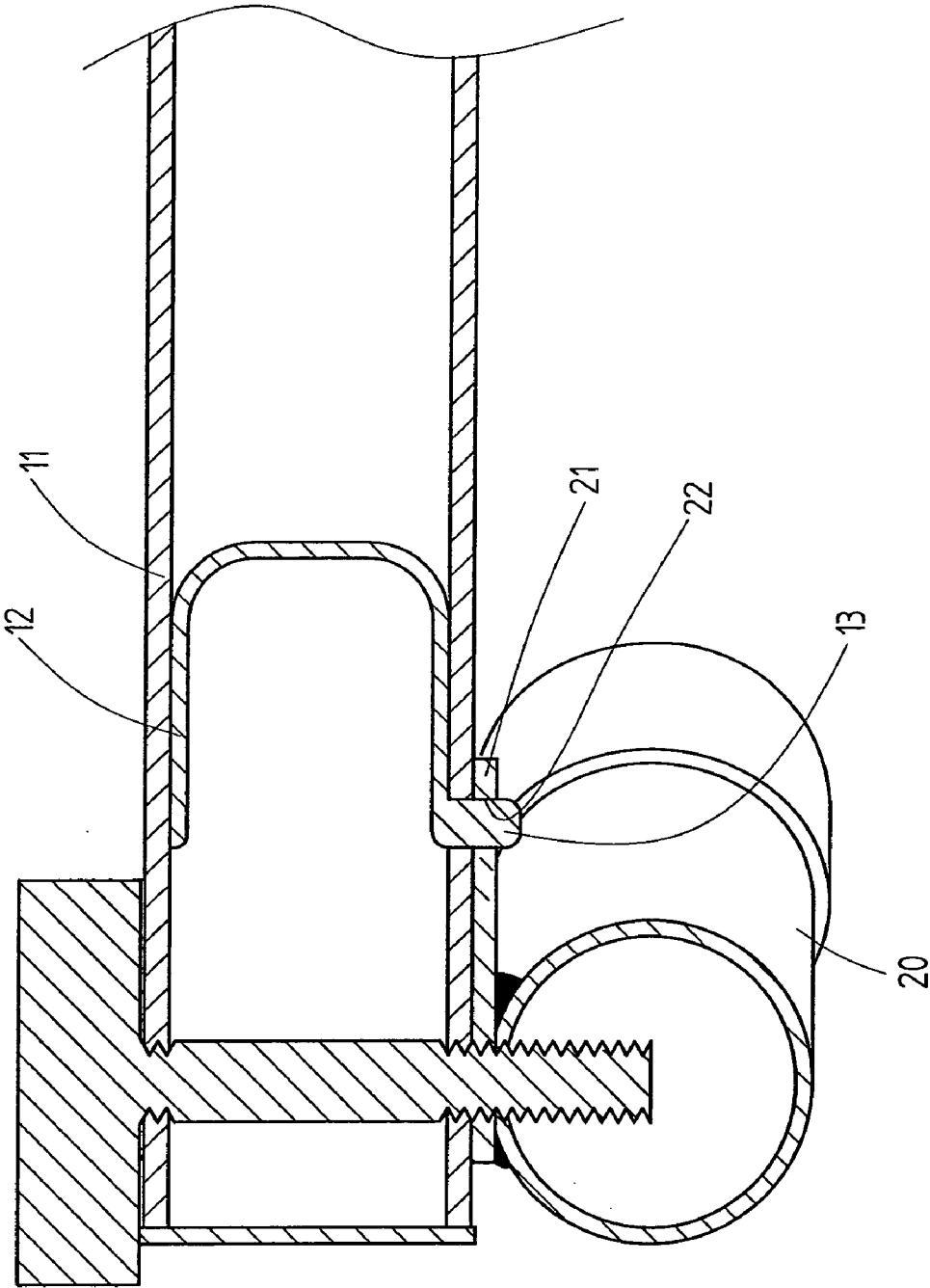


FIG.3

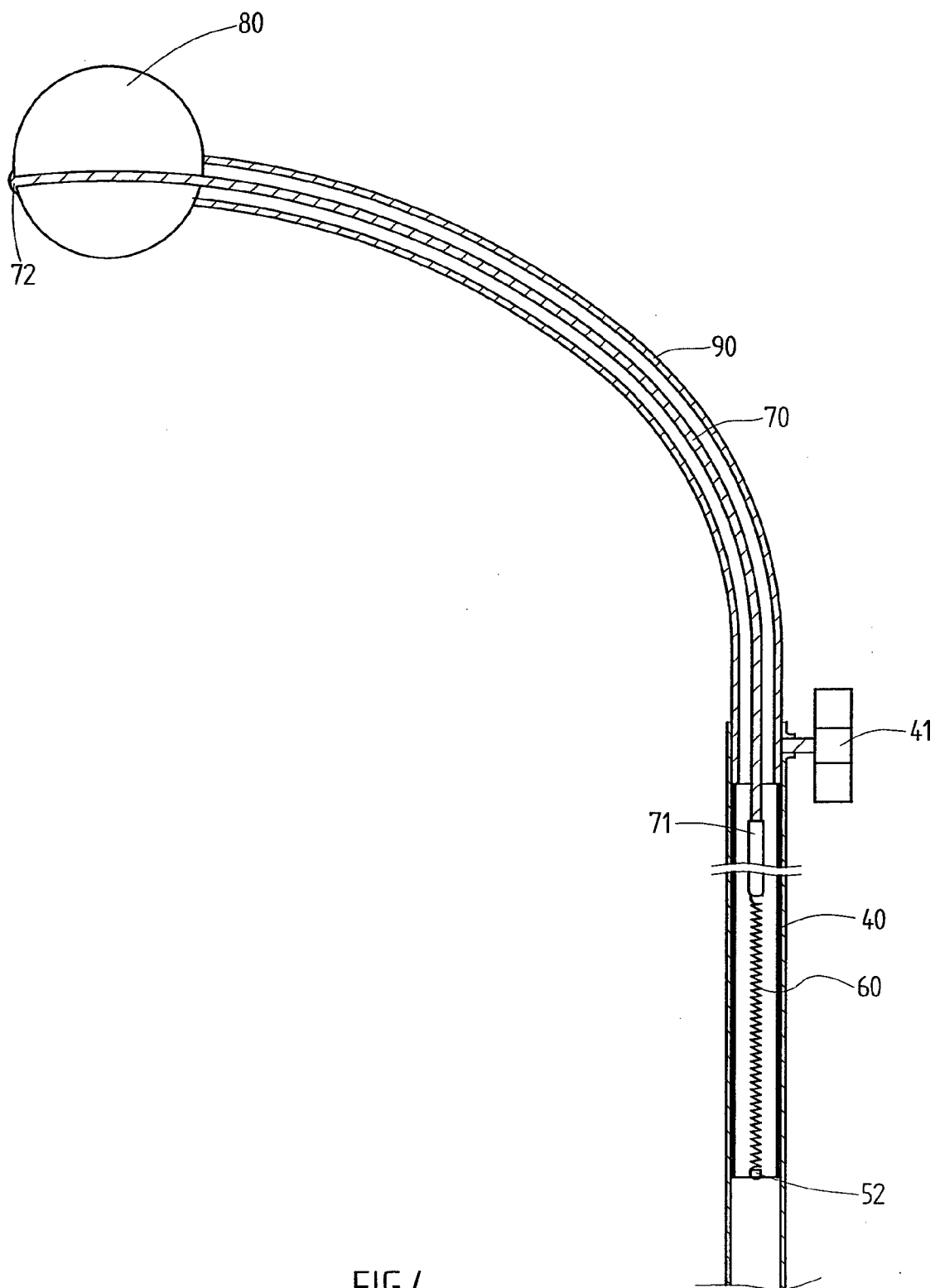
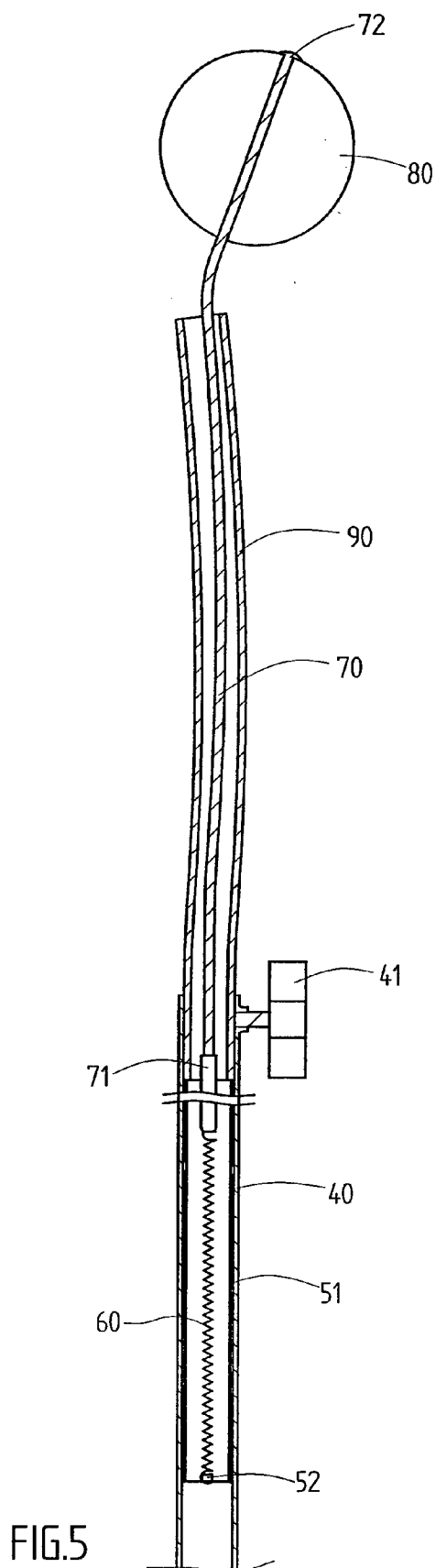


FIG. 4



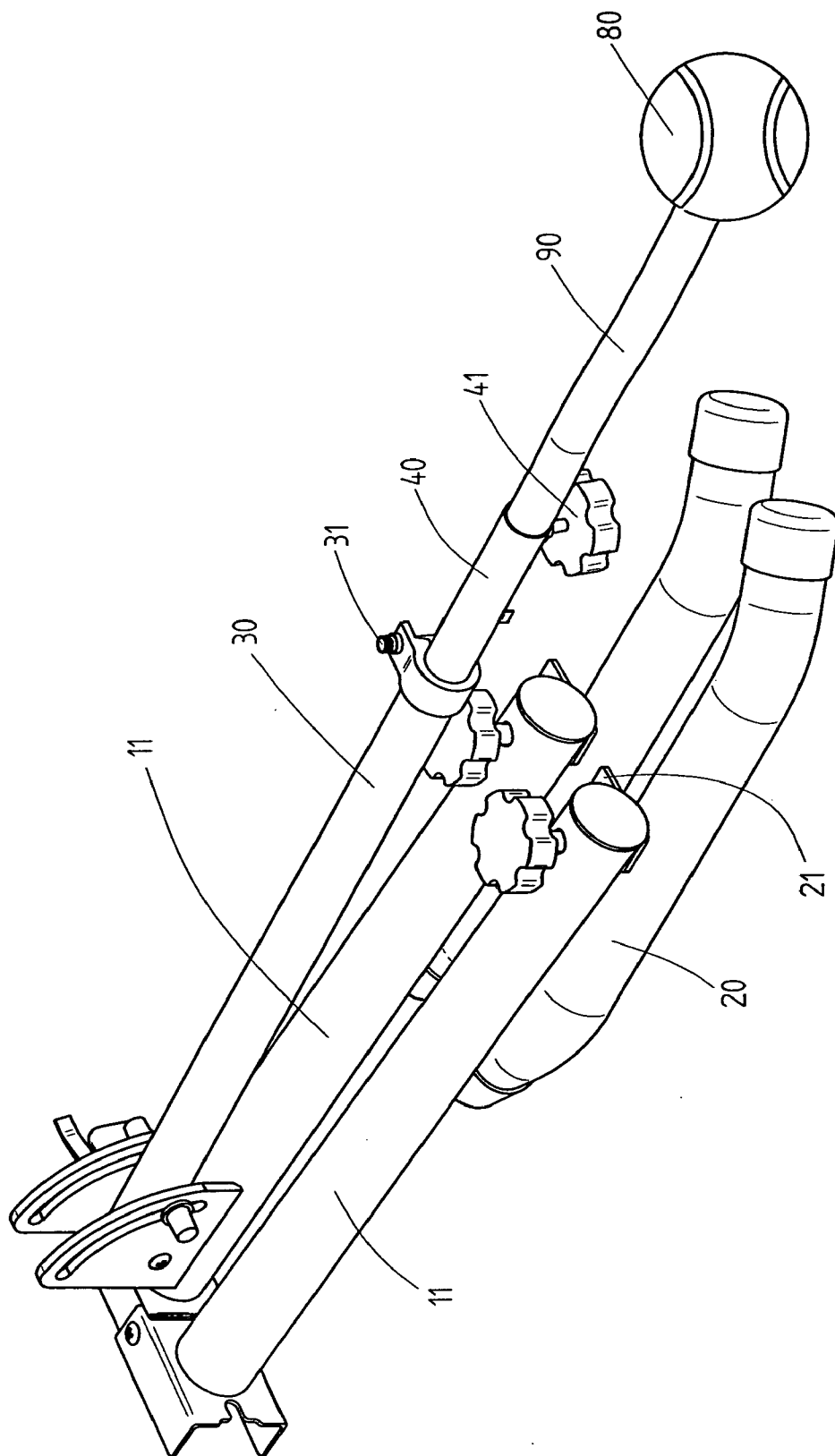


FIG. 6

STRIKE TRAINER

BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention

[0002] The present invention relates to a strike trainer, and more particularly to a strike trainer for ball-type exercise, such as tennis or baseball.

[0003] 2. Description of Related Art

[0004] More and more people spend time on leisure and exercise for his/her health. However, to collect the stroke ball for next strike is a hard job to a newcomer and takes a lot of time during practicing. As a result, the training effect is low and the newcomer may feel disappointed about his/her learning.

[0005] The present invention has arisen to mitigate and/or obviate the disadvantages.

SUMMARY OF THE INVENTION

[0006] The main objective of the present invention is to provide an improved strike trainer that promotes the interest and the effect of learning strike.

[0007] To achieve the objective, the strike trainer in accordance with the present invention comprises a main frame adapted to abut against a supporting surface and a striking device mounted on a top portion of the main frame. The strike device includes a weighted element secured received in the top portion of the main frame and a resilient member having a first end engaged to a lower end of the weighted element. A rope has a first end securely connected to a second end of the resilient member and a resilient post having a first end secured in the top portion of the main frame and sleeved on the rope. A ball is secured on a second end of the rope after extending through the resilient post and abuts a second end of the resilient post due to a restitution force of the resilient member.

[0008] Further benefits and advantages of the present invention will become apparent after a careful reading of the detailed description with appropriate reference to the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0009] **FIG. 1** is a perspective view of a strike trainer in accordance with the present invention;

[0010] **FIG. 2** is a partially exploded perspective view of the strike trainer in **FIG. 1**;

[0011] **FIG. 3** is a partially cross-sectional of the lateral post the base member of the present invention for showing the connection therebetween;

[0012] **FIG. 4** is a cross-sectional view of a striking device of the present invention;

[0013] **FIG. 5** is a cross-sectional view of a striking device of the present invention when being stricken; and

[0014] **FIG. 6** is a perspective view of a strike trainer in accordance with the present invention when being folded for decreasing the volume thereof.

DETAILED DESCRIPTION OF THE INVENTION

[0015] Referring to the drawings and initially to **FIGS. 1-3**, a strike trainer in accordance with the present invention comprises a main frame (10) adapted to abutting against a supporting surface and a striking device (50) mounted on the main frame (10).

[0016] The main frame (10) includes two lateral posts (11) each having a first end longitudinally and pivotally connected to each other. A U-shaped resilient member (12) is received in a second end of each of the two lateral posts (11) and has a protrusion (13) downward extending through the second end of each of the two lateral posts (11).

[0017] Two main posts (20) are respectively laterally secured to the second end of a corresponding one of the two lateral posts (11). The two main posts (20) are parallel to each other for upwardly supporting the striking device (50). Each main post (20) includes a wing plate (21) secured on a top thereof and having a through hole (22) defined in the wing plate (21). The protrusion (13) of each of the two U-shaped resilient members (12) is engaged into the through hole (22) of a corresponding one of the two wing plates (21) to connecting the two lateral posts (11) and the two main posts (20) and forming an H-shaped structure.

[0018] A stand post (30) is pivotally and upwardly secured on the first end of a corresponding one of the two lateral posts (11). A quick release device (31) is mounted on a free end of the stand post (30) for selectively decreasing a diameter of the free end of the stand post (30).

[0019] An inner post (40) is partially received in the stand post (30) and selectively positioned due to the quick release device (31) that is actuated to decrease the diameter of the free end of the stand post (30) when the inner post (40) is partially inserted into the stand post (30) and extends to a suitable height. One end of the inner post (40) opposite to the stand post (30) has an adjust bolt (41) screwed thereon and extending into an inner periphery of the inner post (40).

[0020] Further with reference to **FIG. 4**, the striking device (50) includes a weighted element (51) securely received in the inner post (40) and has a semicircle shape. The weighted element (51) has a hook (52) inwardly extending from a lower end thereof.

[0021] A resilient member (60) is longitudinally received in the weighted element (51) and has a first end connected to the hook (52) of the weighted element (51).

[0022] A rope (70) has connector (71) formed on a first thereof and securely longitudinally connected to a second end of the resilient member (60). A resilient post (90) has a first end securely received in the inner post (40) due to the adjust bolt (41) and separately sleeved on the rope (70). The rope (70) has a second end extending out of the resilient post (90) and through a ball (80). The rope (70) has stopper (72) formed the second end thereof after extending through the ball (80) to prevent the ball (80) from detaching from the rope (70) after being struck. The ball (80) abuts a free end of the resilient post (90) due to the restitution force of the resilient member (60).

[0023] With reference to **FIGS. 4 and 5**, the ball (80) flies away from the resilient post (90) after being struck and pulls the resilient member (60) via the rope (70). The resilient post

(90) is transformed with the flying ball (80). For a period of time, the ball (80) and the resilient post (90) is reinstated to their original position due to the restitution force of the resilient member (60) and the weighted element (51) for next strike such that the user does not need to collect the stricken ball. Consequently, the interest and the effect of learning strike are promoted.

[0024] In addition, with reference to **FIGS. 3 and 6**, the two lateral posts (11) can be folded to abut each other and the two main posts (20) is easily detached from the two lateral posts (11) when the protrusion (13) of each of the two U-shaped resilient members (12) is disengaged from the through hole (22) of each of the wing plate (21). The stand post (30) is pivotally moved toward the two folded lateral posts (11) and the inner post (40) is partially received in the stand post (30) such that the volume of the present invention is increased to a minimum for easily being stored or moved somewhere.

[0025] Although the invention has been explained in relation to its preferred embodiment, it is to be understood that many other possible modifications and variations can be made without departing from the spirit and scope of the invention as hereinafter claimed.

What is claimed is:

1. A strike trainer comprising:

- a main frame adapted to abut against a supporting surface; and
- a striking device mounted on a top portion of the main frame and including:
 - a weighted element secured received in the top portion of the main frame;
 - a resilient member having a first end engaged to a lower end of the weighted element;
 - a rope having a first end securely connected to a second end of the resilient member;
 - a resilient post having a first end secured in the top portion of the main frame and sleeved on the rope; and
 - a ball secured on a second end of the rope after extending through the resilient post, the ball abutting a second end of the resilient post due to a restitution force of the resilient member.

2. The strike trainer as claimed in claim 1, wherein the weighted element has a semicircle shape and the resilient member is received in the weighted element.

3. The strike trainer as claimed in claim 2, wherein the weighted element has a hook formed on a lower end thereof and the first end of the resilient member is engaged to the hook of the weighted element.

4. The strike trainer as claimed in claim 1, wherein the rope has a connector formed on the first end thereof and securely connected to a second end of the resilient member.

5. The strike trainer as claimed in claim 1, wherein the rope has a stopper formed on a second thereof to prevent the ball from detaching from the rope.

6. The strike trainer as claimed in claim 1, wherein the main frame comprises:

two lateral posts each having a first end longitudinally pivotally connected to each other;

two main posts respectively laterally secured to a second end of a corresponding one of the two lateral posts and parallel to each other;

a stand post pivotally and upwardly secured on the first end of a corresponding one of the two lateral posts; and

an inner post selectively positioned and partially received in the stand post, and the first end of the resilient post secured in a free end of the inner post.

7. The strike trainer as claimed in claim 6, wherein the second end of each of the two lateral posts has a U-shaped resilient member received therein, the U-shaped resilient member having a protrusion extending therefrom and extending through the lateral post, each main post having a wing plate secured thereon and corresponding to the U-shaped resilient member, each wing plate having a through hole defined therein for receiving the protrusion of a corresponding one of the two U-shaped resilient member for positioning the two main posts.

8. The strike trainer as claimed in claim 6, wherein the stand post comprises a quick release device mounted on a free end thereof for selectively positioning the inner post.

9. The strike trainer as claimed in claim 6, wherein the inner post comprises an adjust bolt screwed thereon and extending into an inner periphery thereof for positioning the resilient post.

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