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(54) **BILLIARDS AIMING AND SHOT TRAINING DEVICE**

**Publication Classification**

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(52) **U.S. Cl.** ..... **473/2**

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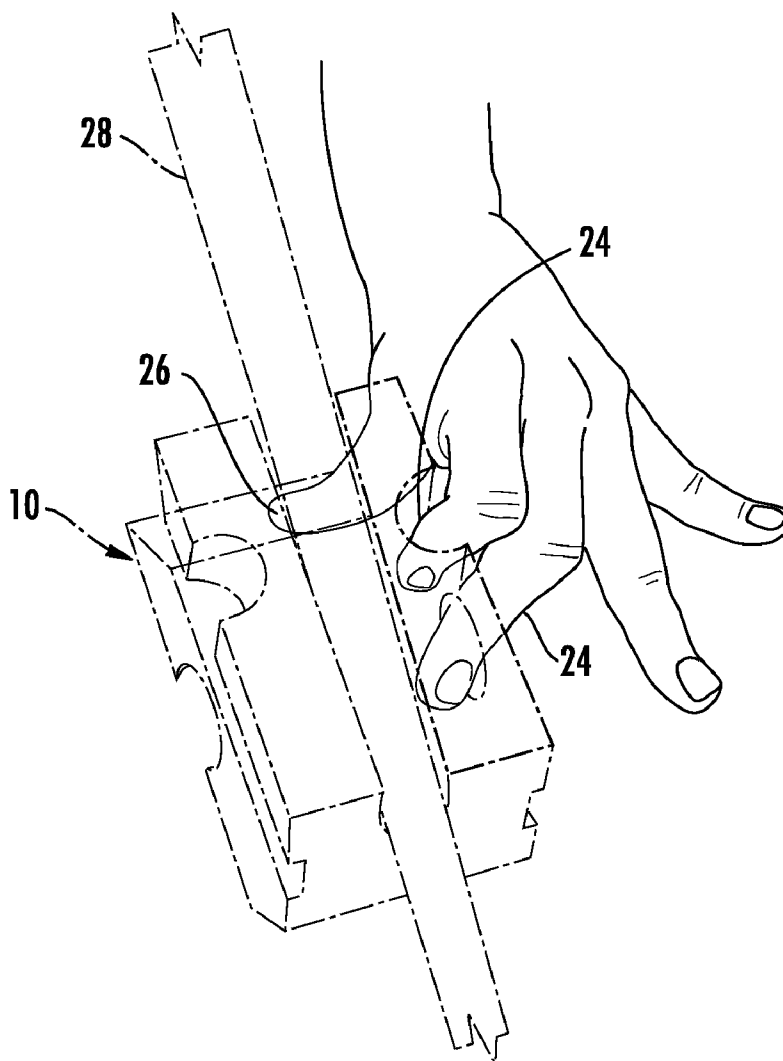
(57) **ABSTRACT**

(22) Filed: **Nov. 21, 2007**

**Related U.S. Application Data**

(60) Provisional application No. 60/867,202, filed on Nov. 27, 2006.

A billiards aiming and shot training device is disclosed. The device includes a hand grip having an index finger support, middle finger support and thumb support. Extending from the hand grip is a billiards cue supporting surface. The supporting surface has a channel surface that forms a trough sized and dimensioned to allow a shaft of a billiards cue to slide therein. The device may further include one or more forward facing sighting lasers to aid the billiards player in aligning a shot.



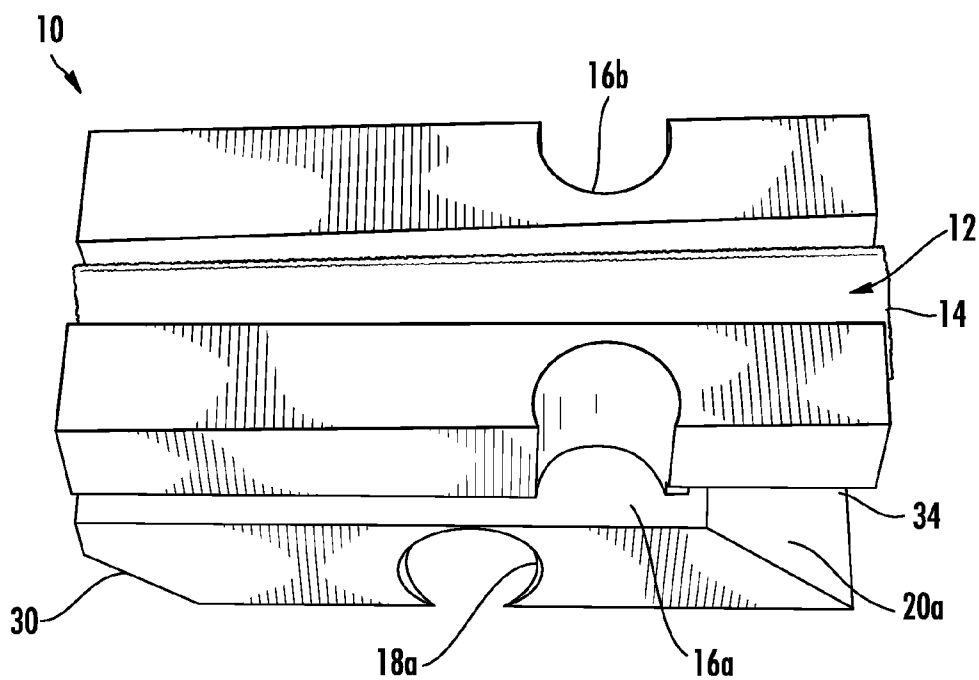


FIG. 1

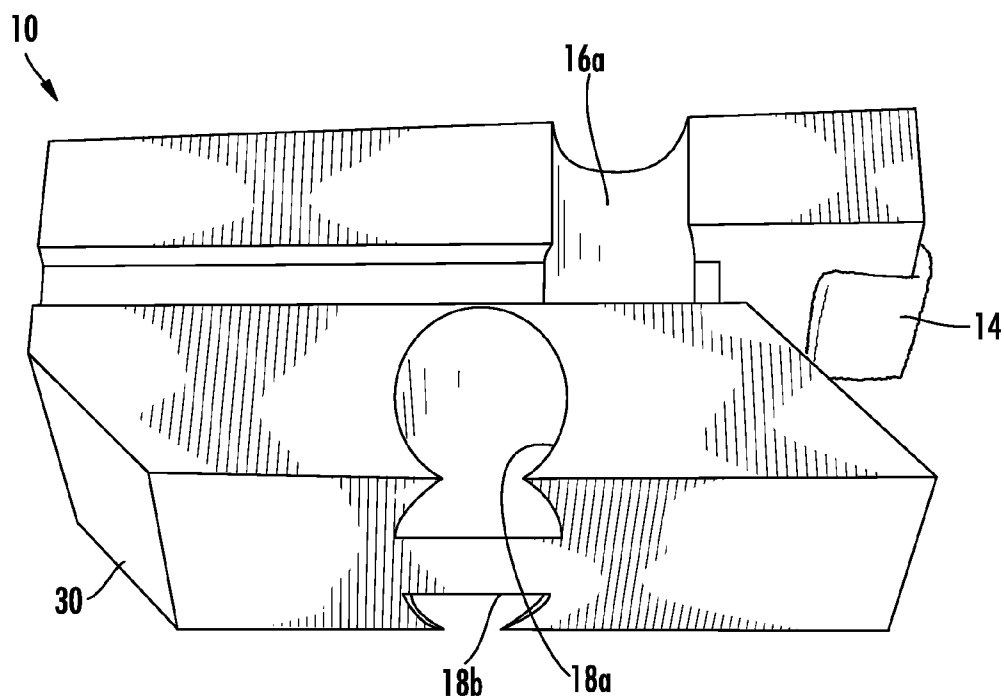


FIG. 2

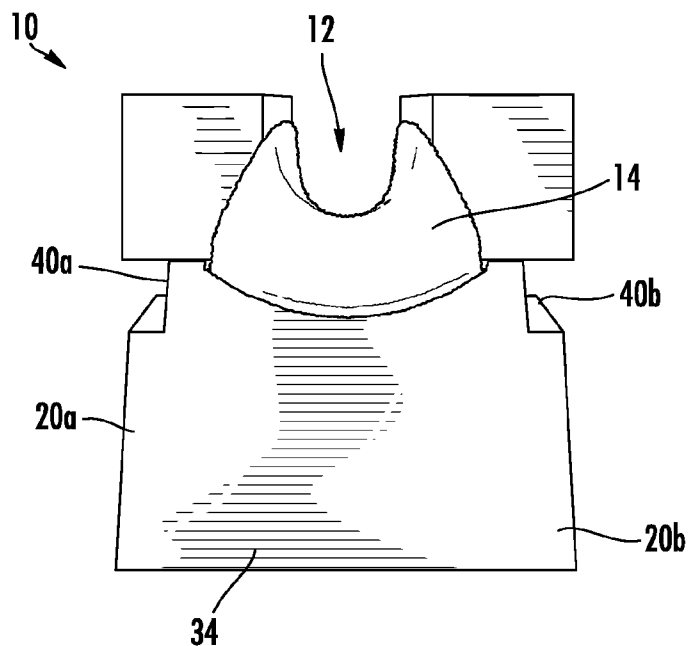


FIG. 3

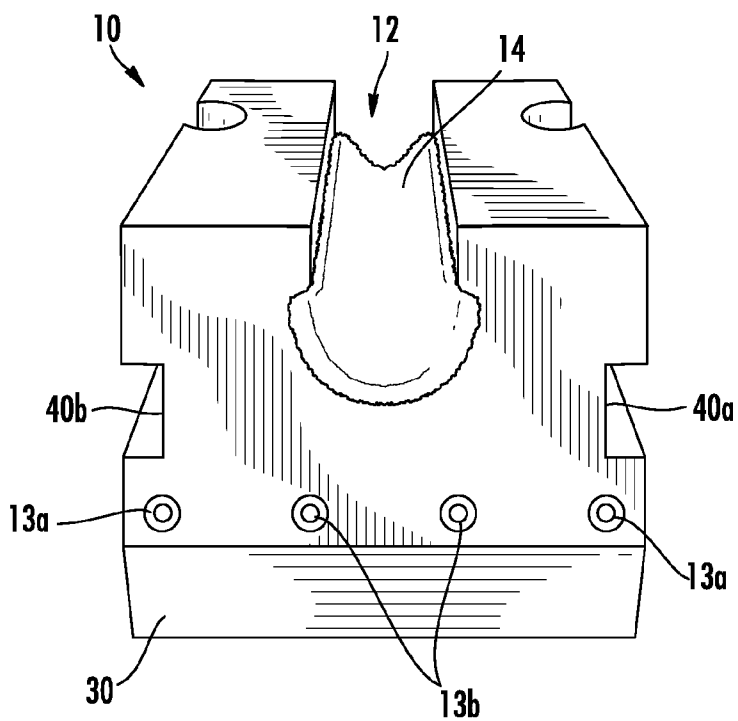


FIG. 4

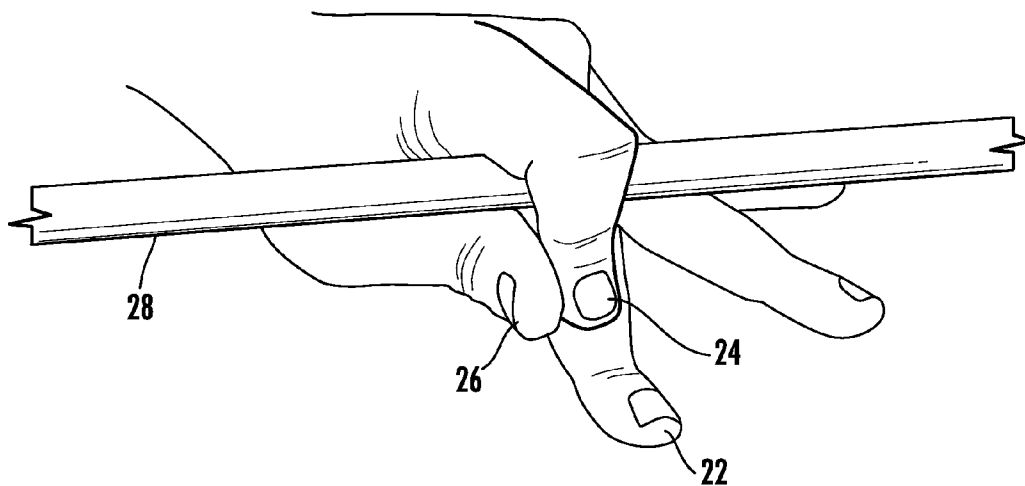


FIG. 5

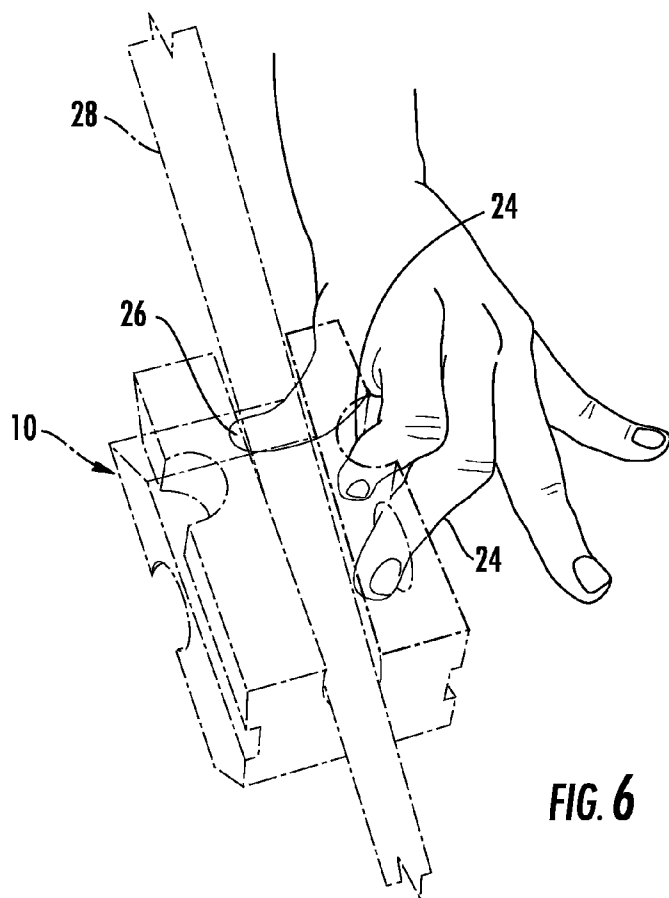


FIG. 6

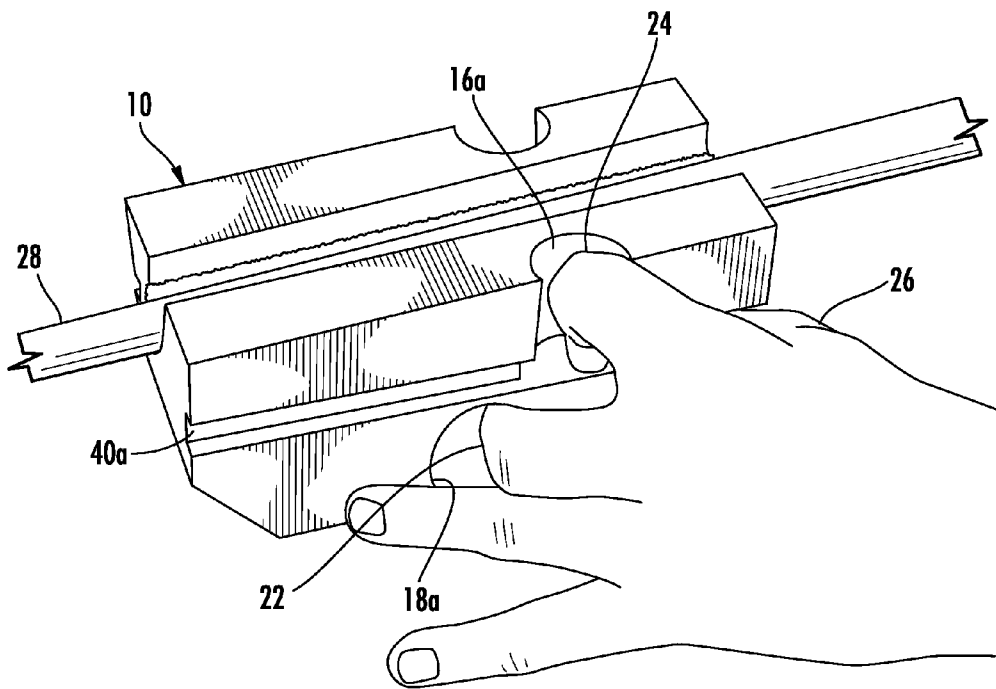


FIG. 7

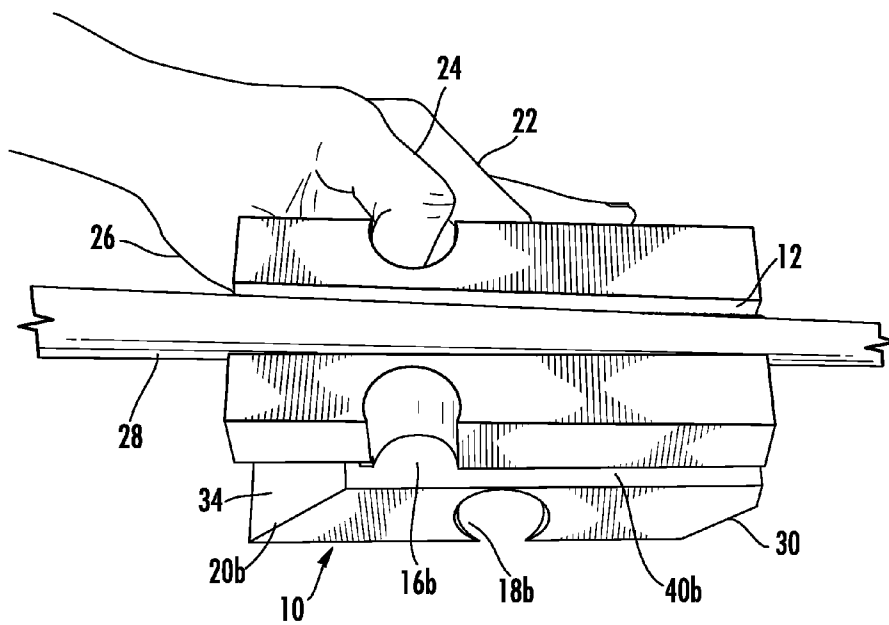


FIG. 8

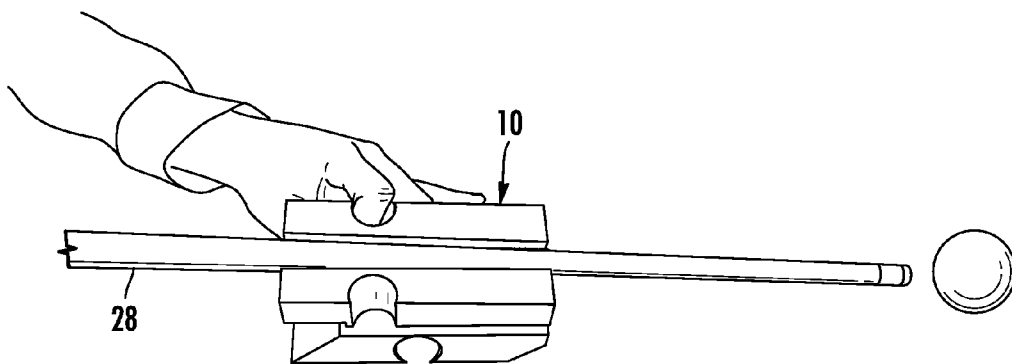


FIG. 9

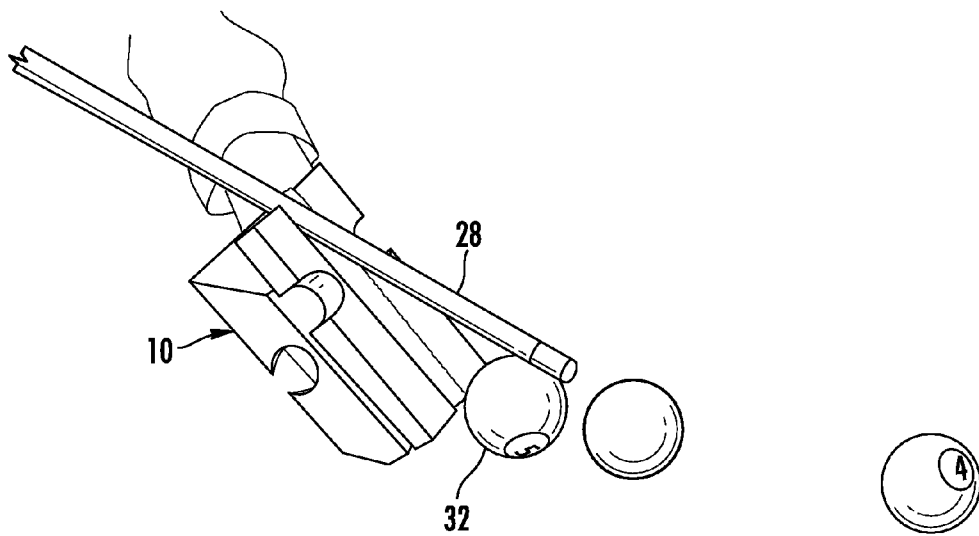
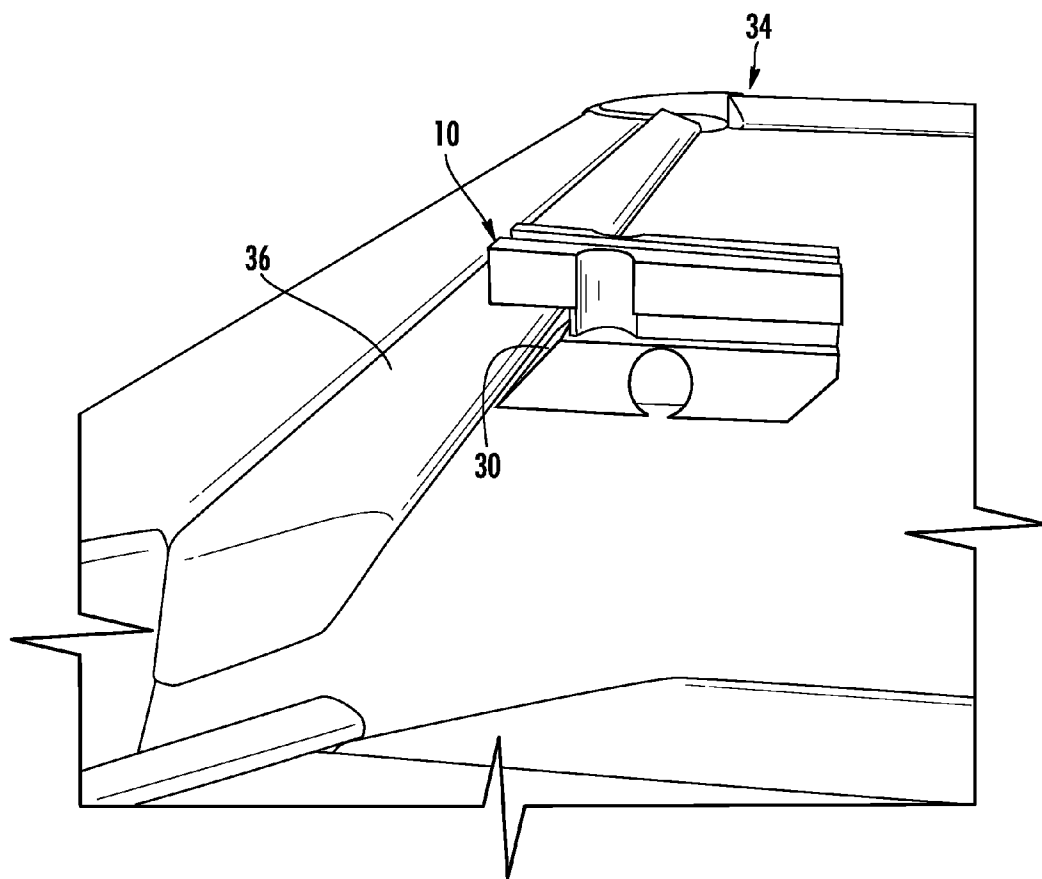


FIG. 10



**FIG. 11**

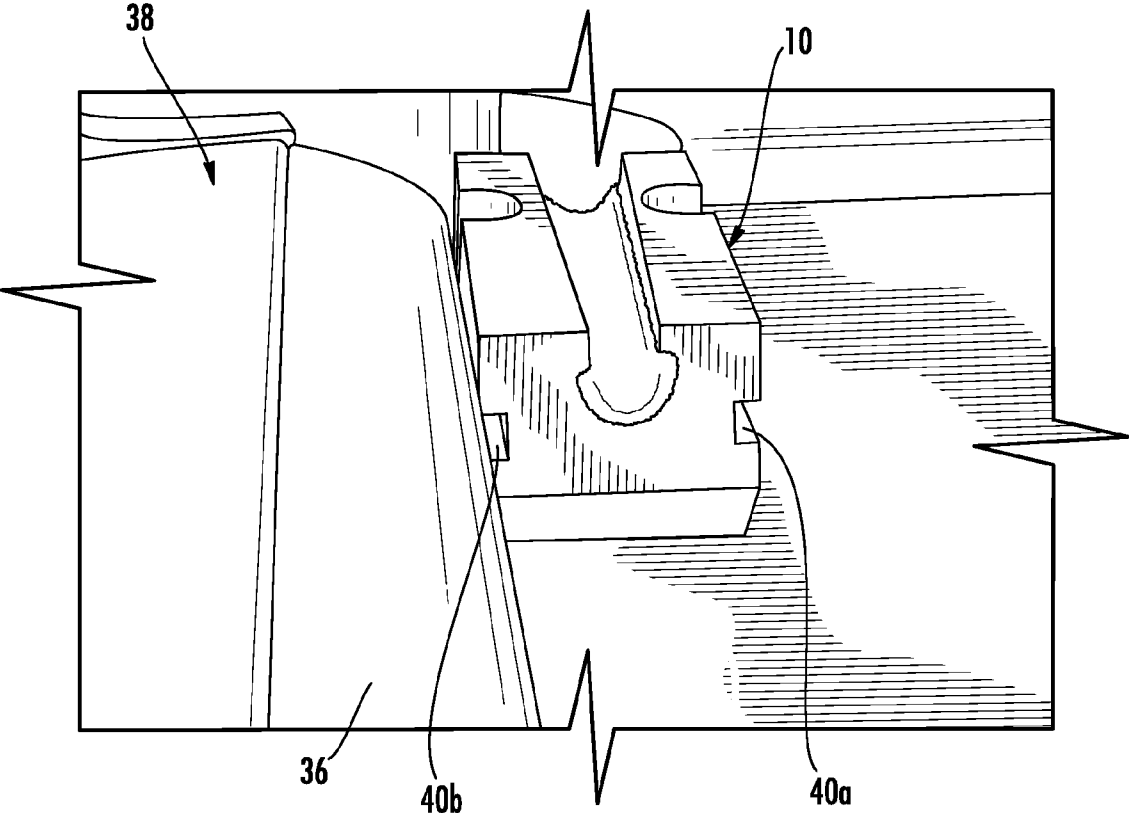


FIG. 12



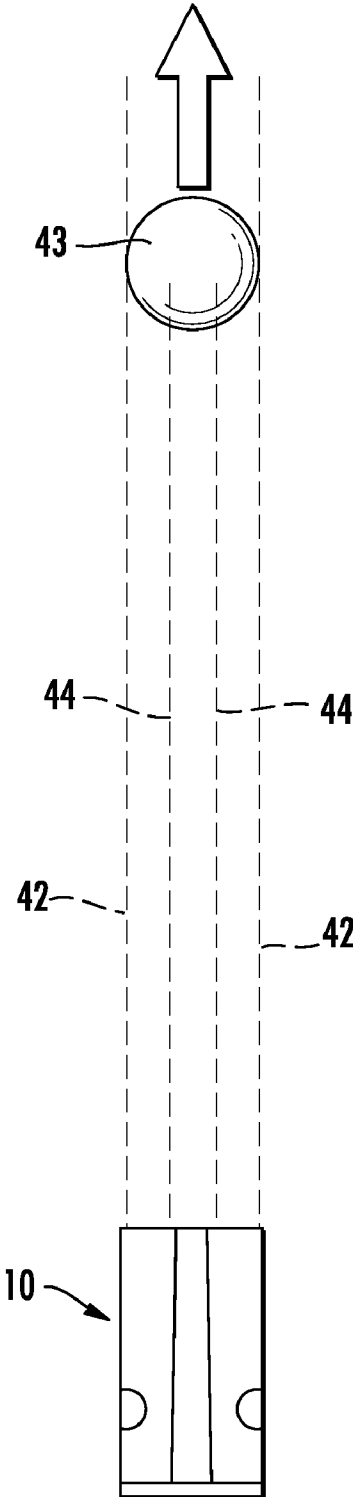
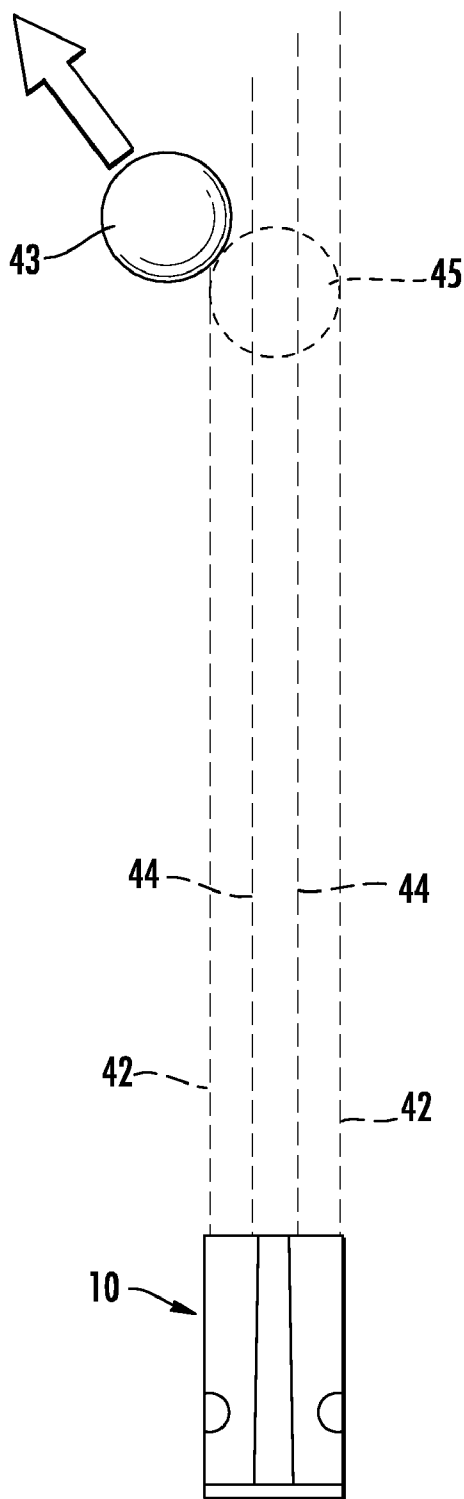


FIG. 13



**FIG. 14**

## BILLIARDS AIMING AND SHOT TRAINING DEVICE

### CROSS-REFERENCE TO RELATED APPLICATION

**[0001]** The present application claims priority to earlier filed U.S. Provisional Patent Application Ser. No. 60/867, 202, filed on Nov. 27, 2006, the entire contents of which are incorporated herein by reference.

### BACKGROUND OF THE INVENTION

**[0002]** 1. Field of the Invention

**[0003]** The present invention relates generally to training devices for billiards and more particularly to a training device to improve billiards player's aiming and shooting skills.

**[0004]** 2. Background of the Related Art

**[0005]** Billiards is a very difficult game to learn and master. The task becomes even more difficult if a player is attempting to teach themselves the skills of the game. Many have tried to create new methods to help novice players. These methods generally include instructional books and videos. But these solutions lack the ability to physically show students what they are actually doing wrong so that they can correct their technique and continue to improve their play. Of course, novice billiards players may hire a professional billiards instructor, but they are expensive and not always available in all parts of the country. Therefore, there is a perceived need within the community for an inexpensive and novel solution for instructing the novice billiards player proper cue alignment and stroke technique.

**[0006]** Even more difficult than shot alignment or stroke technique, is proper aiming technique. It is also a skill that is very difficult for instructors to convey to a student. Without proper aiming technique, a perfect stroke and alignment will not be useful at winning a game of billiards alone. Therefore, there is a need for a method or device to teach novice players how to properly aim their shots.

### SUMMARY OF THE INVENTION

**[0007]** The present invention solves the problems of the prior art by providing a shot trainer that includes laser aiming guides configured to help the billiards player aim at the object ball rather than the cue ball. The shot trainer of the present invention also includes a unique body configuration which allows the shot trainer to be placed snugly against the bumpers of the billiards table. The shot trainer also includes a grip configured to force the billiards player to hold the shot trainer in a manner that induces that billiards player to practice the proper technique for holding a billiards cue. The shot trainer of the present invention is also configured to be used by right-handed and left-handed billiards players.

### BRIEF DESCRIPTION OF THE DRAWINGS

**[0008]** These and other features, aspects, and advantages of the present invention will become better understood with reference to the following description, accompanying drawings and claims where:

**[0009]** FIG. 1 is a top perspective view of the shot trainer of the present invention;

**[0010]** FIG. 2 is a bottom perspective view thereof;

**[0011]** FIG. 3 is a rear perspective view thereof;

**[0012]** FIG. 4 is a front perspective view thereof;

**[0013]** FIG. 5 is a perspective view of a prior art technique of holding a billiards cue;

**[0014]** FIG. 6 is a top perspective view of a billiards player gripping the shot trainer of the present invention, the shot trainer and billiards cue being shown in broken lines;

**[0015]** FIG. 7 is a left side view of a billiards player gripping the shot trainer of the present invention;

**[0016]** FIG. 8 is a right side view of the billiards player gripping the shot trainer of the present invention;

**[0017]** FIG. 9 is a perspective view of a billiards player showing proper aiming technique using the shot trainer of the present invention;

**[0018]** FIG. 10 is a perspective view of a billiards player using the shot trainer of the present invention a bridge to shoot over an intervening obstacle ball;

**[0019]** FIG. 11 is a perspective view showing how the shot trainer of the present invention can be placed rearward against the bumper of the billiards table;

**[0020]** FIG. 12 is a perspective view showing how the shot trainer of the present invention can be placed sideward against the bumper of the billiards table;

**[0021]** FIG. 13 is a top view of the shot trainer of the present invention exemplifying the use of the laser aiming guides to shoot directly at a target ball; and

**[0022]** FIG. 14 is a top view of the shot trainer of the present invention exemplifying the use of the laser aiming guides to make an angled shot through aiming at an imaginary target ball.

### DESCRIPTION OF THE PREFERRED EMBODIMENT

**[0023]** Referring now to FIGS. 1-4, the billiards shot trainer of the present invention is shown generally at 10. The shot trainer has a central trough 12 that extends the length of the top surface of the shot trainer and is wide enough to hold a billiards cue therein (best seen in FIGS. 7-9). The central trough 12 includes a liner 14 to reduce friction so that the billiards cue may easily slide back-and-forth. Preferably the liner 14 is made of felt, but any of the material can be used that will allow the billiards cue to slide easily back-and-forth. Preferably, the central trough 12 is wide enough that a billiards player may practice applying English to shots as well. Having a wider trough 12 allows the billiards player to angle the billiards cue within the trough 12, yet still be able to make a straight stroke with the billiards cue. The shot trainer 10 may also include one or more sighting lasers 13a, 13b, which will be further described below

**[0024]** Each side of the shot trainer 10 has a reciprocal set of finger grips 16a, 16b, 18a, 18b, 20a, 20b. Depending on whether the billiards player is right or left handed, they will use the appropriate set of finger grips 16a, 16b, 18a, 18b, 20a, 20b. For ease of discussion, the set of finger grips 16a, 18a, 20a on the left side of the shot trainer 10 will be described in detail. It is to be understood that the reciprocal set of finger grips on the right side 16b, 18b, 20b is the mirror image of the finger grips on the left side 16a, 18a, 20a.

**[0025]** A first finger grip 16a defining a position for the billiards player's index finger is located to the left of the central trough 12 on the left side of the shot trainer 10. Below and slightly forward of the first finger grip 16a is a second finger grip 18a defining a position for the billiards player's middle finger. To the rear of the second finger grip is a third finger grip 20a, which defines a position for the billiards player's thumb.

[0026] As shown in FIGS. 6-9, the billiards player by positioning his middle finger 22 in the second finger grip 18b, the index finger 24 in the first finger grip 16a, and his thumb 26 on the body of the shot trainer over the third finger grip 20a, can grip the shot trainer 10 in a formation that stimulates holding up your pool cue 26 as shown in FIG. 5. This feature allows the billiards player to become comfortable with forming his or her digits 22, 24, 26 in a proper formation to grip a billiards cue 28.

[0027] Referring to FIG. 10, the front portion of the shot trainer 10 has a sloped edge 30 they can be used as a bridge to shoot over an intervening ball 32. By tilting the shot trainer 10 forward, the sloped edge 30 forms a stand to raise the billiards cue 22 higher so that the billiards player may shot over the intervening ball 32.

[0028] Referring to FIG. 11, the rear portion of the shot trainer 10 has an inwardly sloped surface 34 to enable the shot trainer 10 to be positioned closely against the bumper 36 of the billiards table 38. This feature enables the billiards player to play balls that are close to the bumper 36 of the billiards table. This sloped surface also forms the third finger grip 20a, 20b for the billiards player's thumb 26.

[0029] Referring to FIG. 12, on either side of the shot trainer 20 is a channel 40a, 40b configured to allow the shot trainer 10 to be positioned closely up against the bumper 36 of the billiards table 38. This feature enables the billiards player to play balls resting against or very near the bumper 36 of the billiards table 38.

[0030] Referring now to FIGS. 4, 13 and 14, also envisioned for the present invention of the use of sighting lasers 13a, 13b integrated within the shot trainer body 10. A first pair of sighting lasers 13a is located on the outboard edges of the shot trainer 10 and is positioned so that the beams 42 fall along the outside edges of a billiard ball 43. Because the beams 42 of the first pair of sighting lasers 13a are spaced farther apart than a billiards ball 43, the beams 42 continue down the length of the billiards table indicating where the billiards ball 43 will travel when the cue ball is properly struck. Because the billiards student can now see where they are aiming, rather than erroneously focusing on the cue ball, they can make substantial improvements in their aiming technique. In particular, they will grow accustomed to seeing what a correct billiards shot looks like. Also, as shown in FIG. 14, the billiards student may practice focusing on an imaginary ball 45 to practice making angled shots.

[0031] A second pair of laser sights 13b may also be included. The second pair of laser sights 13b is located on the inboard portion of the shot trainer. The beams 44 of second pair of laser sights 13b is configured to point at the desired impact area of a billiard ball. By using the second pair of laser sights 13b, the billiards student can become accustomed to striking the proper area on the cue ball.

[0032] Therefore, it can be seen that the present invention provides a unique solution to the problem of providing a billiards shot training device that teaches a billiards player proper stroke technique, how to hold a cue, and aiming.

[0033] It would be appreciated by those skilled in the art that various changes and modifications can be made to the illustrated embodiments without departing from the spirit of the present invention. All such modifications and changes are intended to be within the scope of the present invention except as limited by the appended claims.

What is claimed is:

- 1. A billiards aiming and shot training device, comprising: a hand grip having an index finger support, middle finger support and thumb support; and

a billiards cue supporting surface extending from the hand grip, said supporting surface having a channel surface forming a trough sized and dimensioned to allow a shaft of a billiards cue to slide therein.

2. The article of claim 1, wherein the thumb support is formed on a rear portion of the hand grip.

3. The article of claim 1, wherein the first finger grip and second finger grip are formed on a left portion of the hand grip.

4. The article of claim 1, wherein the first finger grip and the second finger grip are formed on a right portion of the hand grip.

5. The article of claim 1, further comprising at least two forward facing sighting lasers spaced substantially the width of a regulation billiards ball apart.

6. The article of claim 1, further comprising a liner on the channel surface to permit a billiards cue to easily slide within the trough.

7. The article of claim 6, wherein the liner is formed from felt.

8. A billiards aiming and shot training device, comprising: a body having a front portion, a rear portion, left portion, right portion, and a top surface; a channel surface forming a trough on the top surface sized and dimensioned to allow a shaft of a billiards cue to slide therein, said trough extending from the front portion to the rear portion of the body; a first finger grip formed on the body; a second finger grip formed on the body; and a thumb support formed on the body.

9. The article of claim 8, wherein the thumb support is formed on the rear portion of the body.

10. The article of claim 8, wherein the first finger grip and second finger grip are formed on the left portion of the body.

11. The article of claim 8, wherein the first finger grip and the second finger grip are formed on the right portion of the body.

12. The article of claim 8, further comprising at least one sighting laser on the front portion of the body.

13. The article of claim 12, wherein there are two spaced apart sighting lasers on the front portion of the body.

14. The article of claim 13, wherein the two sighting lasers are spaced substantially the width of a regulation billiards ball.

15. The article of claim 12, where in there are four spaced apart sighting lasers on the front portion of the body.

16. The article of claim 8, further comprising an angled surface on the front portion of the body.

17. The article of claim 8, further comprising an angled surface on the rear portion of the body permitting the body to be placed flush against a bumper of a billiards table.

18. The article of claim 8, further comprising: a first surface forming a first slot on the left portion of the body extending the length thereof; a second surface forming a second slot on the right portion of the body extending the length thereof; and the first slot and the second slot sized and dimensioned to receive a leading edge of a bumper of a billiards table.

19. The article of claim 8, further comprising a liner on the channel surface to permit a billiards cue to easily slide within the trough.

20. The article of claim 19, wherein the liner is formed from felt.

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