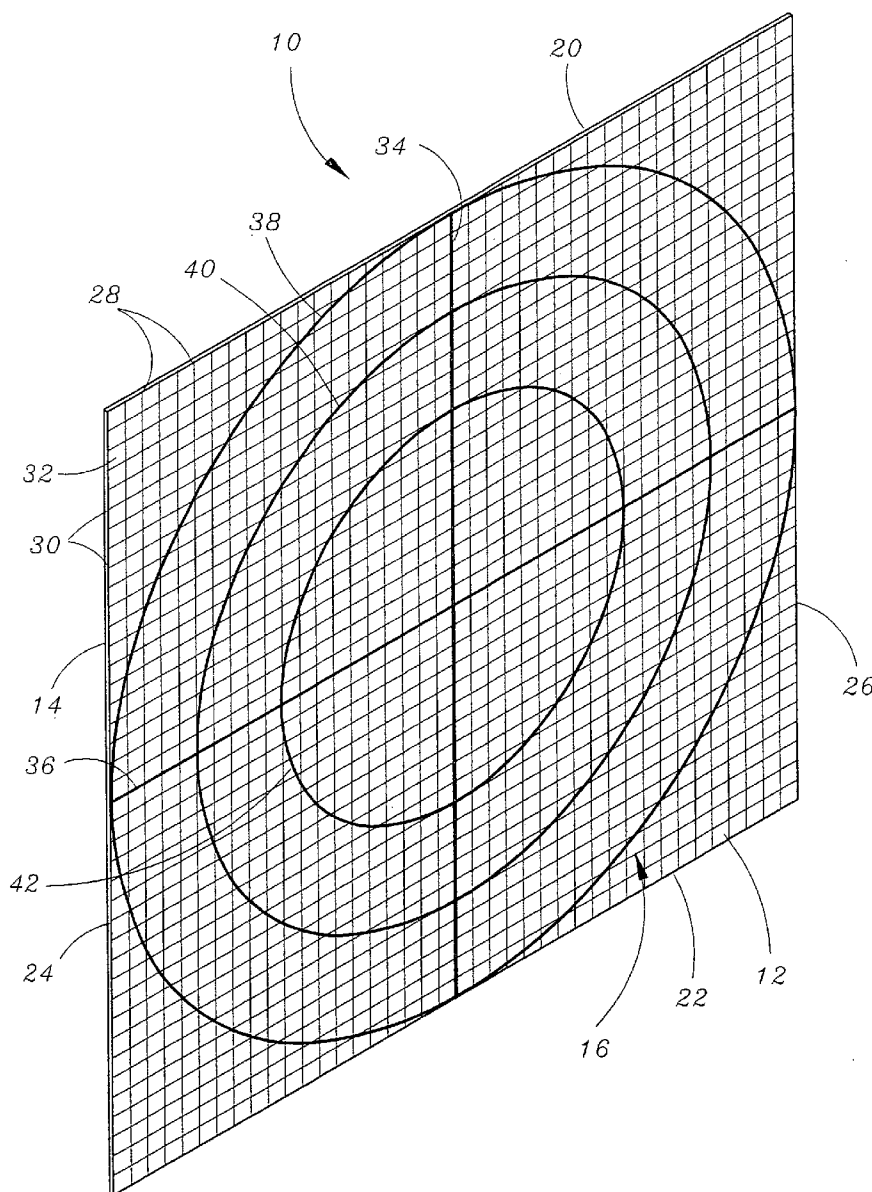


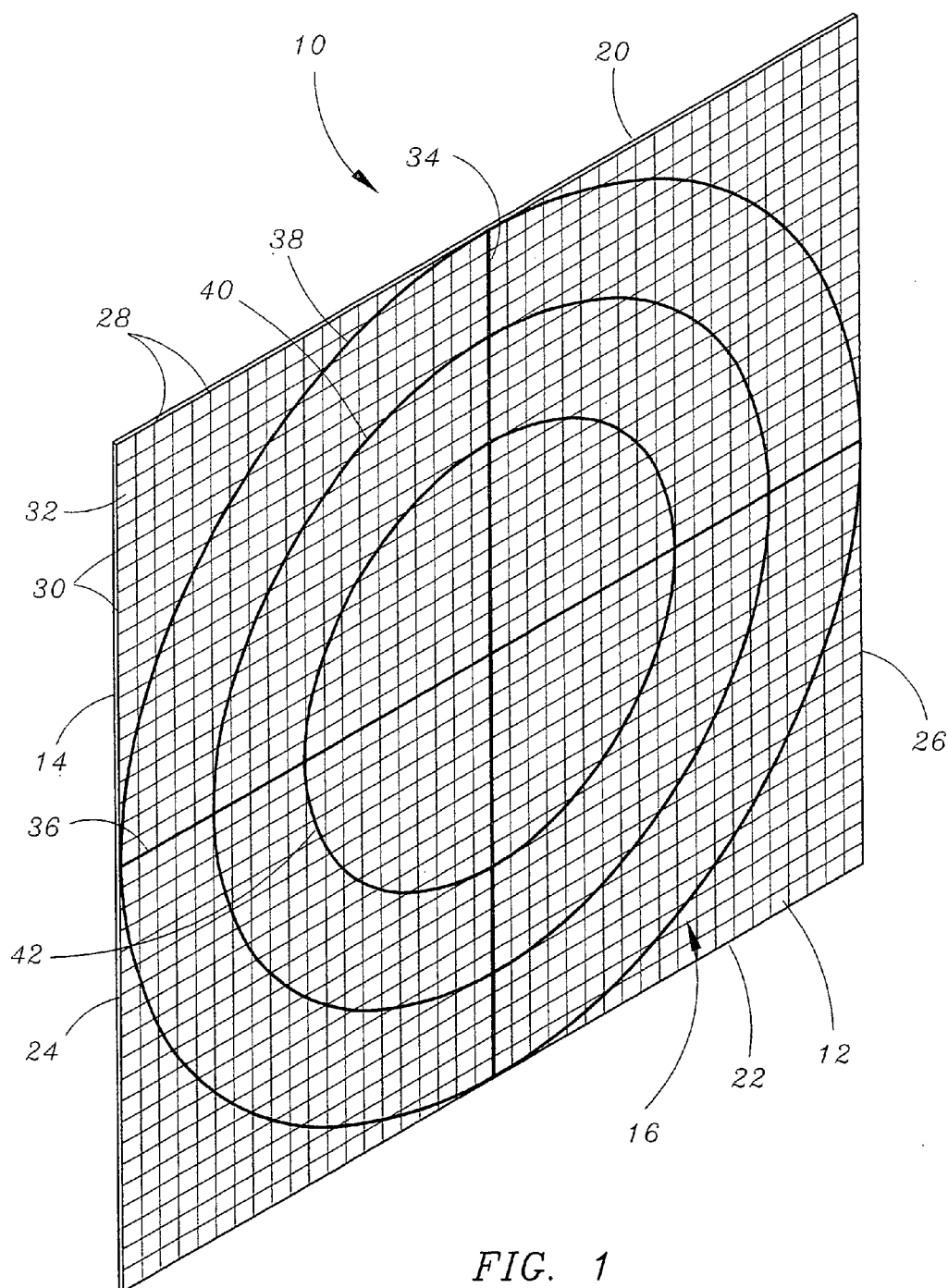


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(19) **United States**(12) **Patent Application Publication**
Munn(10) **Pub. No.: US 2012/0161396 A1**(43) **Pub. Date: Jun. 28, 2012**(54) **TARGET FOR PATTERNING A SHOTGUN**(52) **U.S. Cl. 273/348**(57) **ABSTRACT**(76) Inventor: **Myron L. Munn**, Beatrice, NE
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A shotgun patterning target is provided wherein vertically disposed gridlines and horizontally disposed gridlines define square grids on the face of the target to enable the shooter to accurately and quickly count the pellet holes in each of the grids. The shotgun target also includes a 40-inch circle, a 30-inch circle and a 20-inch circle imprinted thereon. Thickened and colored center lines are provided on the target to provide a readily visible aiming point for the shooter. In a modified version of the invention, a rifle target is provided on the back side of the shotgun target and also has vertically disposed and horizontally disposed gridlines imprinted thereon which define square grids. The rifle target is divided into a plurality of quadrants each of which has at least one bulls-eye target imprinted thereon.





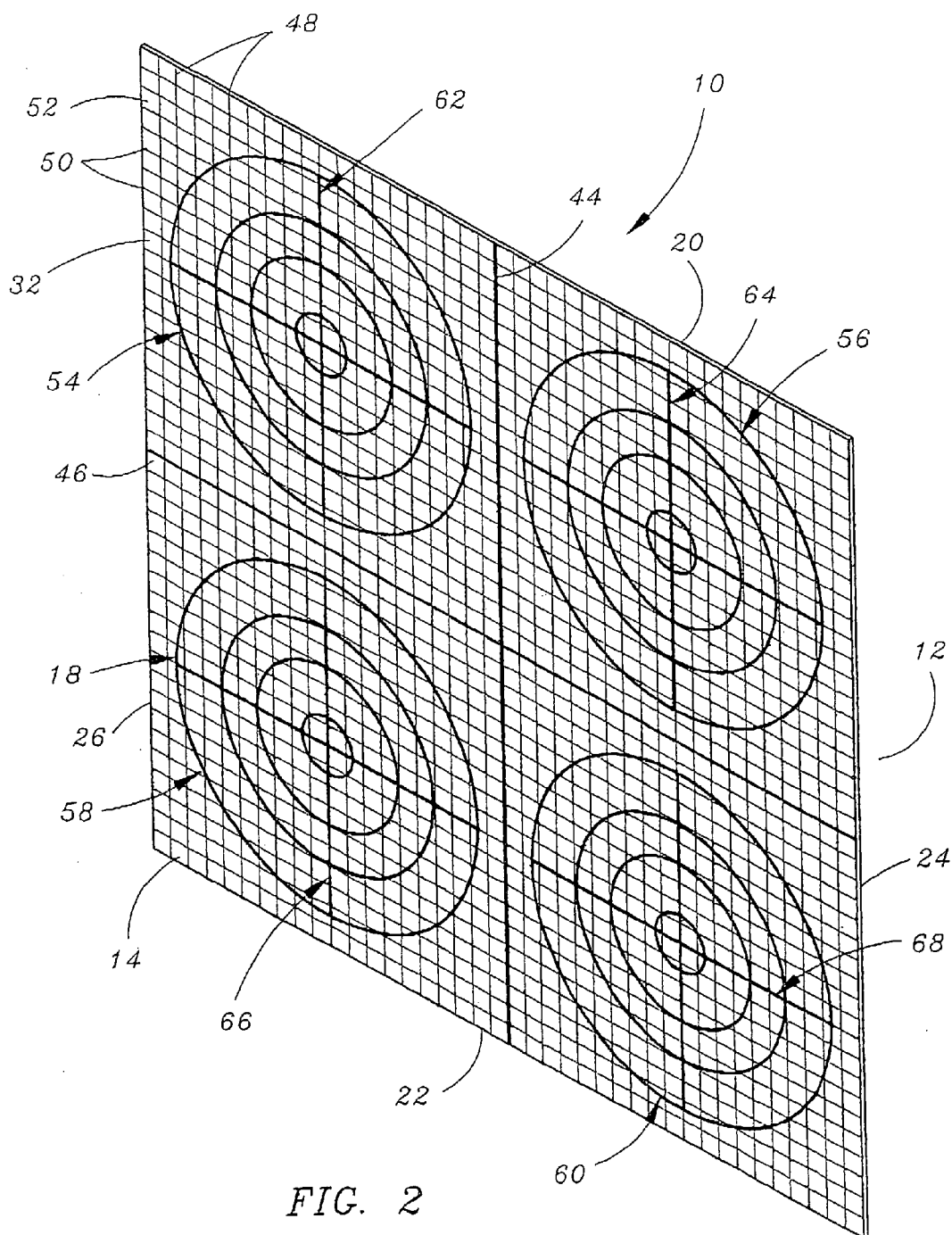


FIG. 2

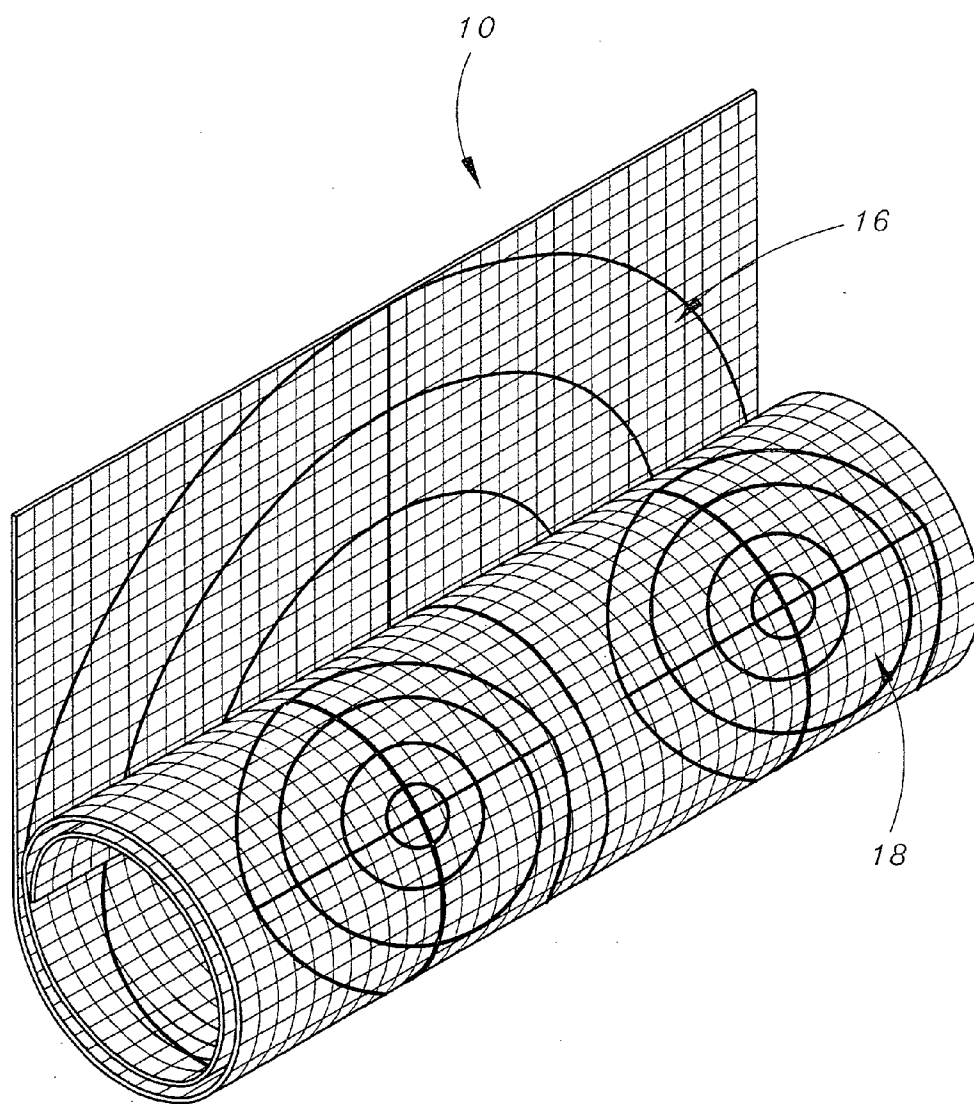


FIG. 3

TARGET FOR PATTERNING A SHOTGUN

BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention

[0002] This invention relates to a target for patterning a shotgun. In an embodiment of the invention a target for sighting in a rifle is provided on the back side of the shotgun target.

[0003] 2. Description of the Related Art

[0004] The shooting performance of a shotgun must be evaluated to ensure that the shotgun will properly hit a target at which it is aimed. One method of determining the shooting performance of a shotgun is to examine the pattern of the shotgun pellets striking a target at a particular distance. There are many variables which influence the shot patterns of a shotgun. One variable is the amount of constriction of the choke installed on the shotgun. An extra full choke will tend to pattern much tighter, for example, than a modified choke. A second variable is the type of material the shotgun pellets are made of. Shotgun pellets are constructed from several different types of metals, depending on the type of hunting they are intended for. Some examples include Tungsten Matrix pellets, lead pellets, copper coated lead pellets, steel pellets, copper coated steel pellets, bismuth, etc. Each of these different types of shotgun pellets will tend to pattern differently depending on the type of choke installed on the shotgun. A third variable is the distance from the shooter to the target. To “pattern” a shotgun choke, normally a person shoots at a target at either 30 or 40 yards away. The number of pellets striking the target within a 30-inch circle or within a 40-inch circle is then counted and compared with the number obtained from shooting with a choke of different constriction installed on the shotgun and/or a different type of pellet (i.e., lead, steel, etc.). In this way, the shooter can ascertain which type of choke and/or type of shotgun pellets will deliver the best pattern for the type of game which he/she is intending to hunt. Another variable is the brand of shotgun choke. Most of the major manufacturers of shotguns offer various chokes for their shotguns in varying constrictions, allowing the buyer to utilize the shotgun for several different types of game animals. There are also, however, several companies that offer chokes for these shotguns in the aftermarket. Each of these different brands of chokes will pattern differently in any given shotgun and need to be patterned by the user to ascertain which type and brand of choke patterns is the best in the shotgun he/she is using for each specific game animal being hunted.

[0005] A great majority of shotgun users never pattern a shotgun and thus have no real idea of its performance. The proper patterning of a shotgun may be a laborious chore which is perhaps one reason why most shotgun users do not pattern their shotguns. One method of preparing a patterning setup is to take a roll of paper and cut it into squares and tacking the squares to a suitable frame. The standard way of taking patterns is to shoot at a sufficiently wide sheet of paper at 40 yards and then to scribe a 30-inch circle within a 40-inch circle that will enclose most of the shot holes. Next, one counts the number of holes in the circle and compares the total on a percentage basis with the total number of pellets in the shotgun shell. Patterns for 20, 16 and 12-gauge guns are usually taken at 40 yards; the pattern for .410 gauge and 28 gauge guns being taken at 30 yards. After a 30-inch circle has been scribed to enclose the most pellets, the past method patterning was to quarter the circle and then count the pellet holes in each quarter, checking off each hole with a pencil.

The four totals are then added to give the grand total in the circle. The counting of the pellet holes is a laborious task since the shooter may become confused in the maze of pellet holes.

[0006] Usually a shotgun is patterned by shooting the type of shotgun shell the shooter has chosen, for the particular type of game animal he/she is hunting, through the different chokes the shooter has at the distance most shots are expected to occur. The shooter would then select the choke which gives the largest and most even patterns, without an excessive number of “holes” through which the target could escape. Alternatively, if the shooter has only one choke available for his/her particular gun (for example, a gun which does not come with threaded chokes), the shooter could test a selection of appropriate shotgun loads from different manufacturers to ascertain which brand gives the largest and most even pattern without excessive holes in the pattern through which the target could escape.

SUMMARY OF THE INVENTION

[0007] This Summary is provided to introduce a selection of concepts in a simplified form that are further described below in the Detailed Description. This Summary is not intended to identify key aspects or essential aspects of the claimed subject matter. Moreover, this Summary is not intended for use as an aid in determining the scope of the claimed subject matter.

[0008] A target for patterning a shotgun is provided which includes a sheet having a front side, a back side, an upper end, a lower end, a first side edge and a second side edge. A plurality of concentric circles are imprinted on the front side of the sheet with the concentric circles having a predetermined diameter. A plurality of vertically disposed and horizontally spaced-apart gridlines are imprinted on the front side of the sheet which extend between the upper end and the lower end of the sheet between the first side edge and the second side edge of the sheet. A plurality of horizontally disposed and vertically spaced-apart gridlines are imprinted on the front side of the sheet which extend between the first side edge and the second side edge of the sheet between the upper and lower ends of the sheet.

[0009] In the preferred embodiment, the sheet has a centrally positioned crosshair imprinted on the front side thereof with the thickness of the crosshair being greater than the thickness of the gridlines. In the preferred embodiment, the gridlines and the crosshair are colored in contrasting colors. In the preferred embodiment, the concentric circles have diameters of approximately 40 inches, 30 inches and 20 inches respectively. In the preferred embodiment, the vertically disposed gridlines are spaced approximately one inch from one another with the horizontally disposed gridlines being spaced approximately one inch from one another.

[0010] In an embodiment of the invention, the back side of the target has a plurality of spaced-apart bulls-eye targets imprinted thereon with the back side of the sheet being also provided with the vertically disposed and horizontally spaced-apart gridlines and horizontally disposed and vertically spaced-apart gridlines.

[0011] It is therefore a principal object of the invention to provide an improved target for patterning a shotgun.

[0012] A further object of the invention is to provide a target for patterning a shotgun with the front side thereof having a plurality of concentric circles provided thereon and with the front side of the sheet having a plurality of vertically

disposed and horizontally spaced-apart gridlines as well as a plurality of horizontally disposed and vertically spaced-apart gridlines imprinted thereon.

[0013] A further object of the invention is to provide a target for patterning a shotgun which is easier to use than conventional pattern targets.

[0014] A further object of the invention is to provide a target for patterning a shotgun which will alternatively have rifle bulls-eye targets imprinted on the back side thereof.

[0015] These and other objects will be apparent to those skilled in the art.

BRIEF DESCRIPTION OF THE DRAWINGS

[0016] Non-limiting and non-exhaustive embodiments of the present invention are described with reference to the following figures, wherein like reference numerals refer to like parts throughout the various views unless otherwise specified.

[0017] FIG. 1 is a front perspective view of the target of this invention;

[0018] FIG. 2 is a back perspective view of the target of this invention; and

[0019] FIG. 3 is a perspective view illustrating the target of this invention being rolled for handling and/or shipment.

DESCRIPTION OF THE PREFERRED EMBODIMENT

[0020] Embodiments are described more fully below with reference to the accompanying figures, which form a part hereof and show, by way of illustration, specific exemplary embodiments. These embodiments are disclosed in sufficient detail to enable those skilled in the art to practice the invention. However, embodiments may be implemented in many different forms and should not be construed as being limited to the embodiments set forth herein. The following detailed description is, therefore, not to be taken in a limiting sense in that the scope of the present invention is defined only by the appended claims.

[0021] The target of this invention is referred to generally by the reference numeral 10 and is preferably constructed of a sheet of paper material so that it may be rolled for handling and shipping as seen in FIG. 3. Target 10 includes a front side 12 and a back side 14. A shotgun patterning target 16 is provided on the front side 12 of the target 10. It is preferred, but certainly not necessary, to provide a rifle target 18 on the back side 14 of the target 10.

[0022] The target illustrated in the drawings has a dimension of 40 inches by 40 inches. A 48 inch by 48 inch target would be useful but few printers are able to handle paper sheets greater than 40 inches by 40 inches. For purpose of description only, target 10 will be described as having an upper end 20, lower end 22, side edge 24 and side edge 26.

[0023] The shotgun target 16 has a plurality of vertically disposed and horizontally spaced gridlines 28 imprinted thereon or otherwise formed thereon which extend between upper end 20 to lower end 22 between side edges 24 and 26. Target 16 also has a plurality of horizontally disposed and vertically spaced gridlines 30 imprinted thereon or formed thereon which extend between side edge 24 to side edge 26 between upper end 20 and lower end 22. The intersection of gridlines 28 and 30 define square grids 32. Preferably, gridlines 28 are spaced one inch apart and gridlines 30 are spaced one inch apart.

[0024] Shotgun target 16 has a vertical center line 34 imprinted thereon or formed thereon extending between upper end 20 and lower end 22 of the target. Preferably, center line 34 is approximately one-half inch wide and is colored in a color different from the color of the gridlines 28 and 30. Shotgun target 16 also has a horizontal center line 36 extending between side edge 24 and side edge 26. Preferably, center line 36 is approximately one-half inch wide and is colored the same color as center line 34. The numeral 38 refers to a circle imprinted on the target or formed thereon which preferably has a 40-inch diameter but could be somewhat greater or less than 40 inches. The numeral 40 refers to a circle which is 30 inches in diameter and the numeral 42 refers to a circle which is 20 inches in diameter with those circles being printed on the target or otherwise formed thereon.

[0025] The rifle target 18 on the back side 14 of the target 10 is divided into four quadrants by intersecting center lines 44 and 46 which are heavy or thickened lines. Target 18 has a plurality of vertically disposed and horizontally spaced gridlines 48 printed thereon or otherwise formed thereon which extend between upper end 20 to lower end 22 between side edges 24 and 26. Rifle target 18 also has a plurality of horizontally disposed and vertically spaced gridlines 50 printed thereon or formed thereon which extend between side edge 24 to side edge 26 between upper end 20 and lower end 22. The intersection of gridlines 48 and 50 define square grids 32. Preferably, gridlines 48 are spaced one inch apart and gridlines 50 are spaced one inch apart. Rifle target 18 has bulls-eye targets 54, 56, 58 and 60 imprinted thereon or otherwise formed thereon in the quadrants. The targets 54, 56, 58 and 60 have crosshairs 62, 64, 66 and 68 printed thereon or formed thereon respectively. These crosshairs 62, 64, 66 and 68 would constitute the aiming point for sighting in a rifle and would be in a color which contrasts with the color of the gridlines 48 and 50.

[0026] Assuming that the target 10 only has the shotgun target 16 formed thereon, the target will be secured to a suitable support at a predetermined distance from the shooter. The shooter will then aim the shotgun at the intersection of the center lines 34 and 36 and will discharge the shotgun. The shooter will then go to the target and count the number of pellet holes that fall within the 20-inch circle, fall within the 30-inch circle and fall within the 40-inch circle. As the pellet openings in each of the grids 32 are counted, that grid will be checked with a pencil or the like so that the pellet holes are not counted more than once. The shotgun target 16 of this invention provides a unique way of creating grids so that those grids may be easily checked to see if there are any pellet holes formed therein. The thickened and colored center lines 34 and 36 provide a highly visible target at which the shotgun may be pointed. Thus it can be seen that the shotgun target 16 accomplishes at least all of its stated objectives.

[0027] Assuming that the target 10 has the rifle target 18 imprinted on the back side 14 of the target 10, the rifle shooter may shoot at one or all of the bulls-eye targets 54, 56, 58 and 60. The square grids 32 in the rifle targets enable the rifle being fired to be easily sighted in a precise manner utilizing the square grids, crosshairs and circles.

[0028] It can therefore be seen that the rifle target 14 accomplishes at least all of its stated objectives.

[0029] To the best of Applicant's knowledge, there is no shooting target currently available with offers all the advantages and features of Applicant's shotgun patterning targets. One advantage of Applicant's shotgun patterning target

design is that a target large enough to offer a 40-inch circle (the area commonly used for patterning a shotgun for goose hunting) has been provided. The target also has a 30-inch circle and a 20-inch circle. Therefore, it can be used for patterning shotguns for small game such as quail and larger game such as geese. Applicant's shotgun patterning target has gridlines creating one-inch squares plus lines dividing the target into four different quadrants. This allows for methodical counting of pellet hits for comparison purposes. Another advantage of Applicant's shotgun patterning target has a crosshair in a contrasting color which offers a consistent aiming point. This allows the shooter to compare targets knowing that each shot on the comparison targets was aimed at the same point on the targets. Yet another advantage of Applicant's shotgun patterning target is that rifle sight-in targets are provided on the back side of the paper. Since the holes in the paper created from sighting in a rifle on the back side of the target would usually be a different size than the holes created from patterning a shotgun on the front side of the target, Applicant's target could be used to first sight in a rifle using the back side bulls-eye targets and then turned over and used for patterning a shotgun.

[0030] Although the invention has been described in language that is specific to certain structures and methodological steps, it is to be understood that the invention defined in the appended claims is not necessarily limited to the specific structures and/or steps described. Rather, the specific aspects and steps are described as forms of implementing the claimed invention. Since many embodiments of the invention can be practiced without departing from the spirit and scope of the invention, the invention resides in the claims hereinafter appended.

1. A target for patterning a shotgun, comprising:
a sheet having a front side, a back side, an upper end, a lower end, a first side edge and a second side edge;
at least one circle imprinted on said front side of said sheet having a predetermined diameter;
a plurality of vertically disposed and horizontally spaced-apart gridlines imprinted on said front side of said sheet which extend between said upper end and said lower end of said sheet between said first side edge and said second side edge of said sheet;
and a plurality of horizontally disposed and vertically spaced-apart gridlines imprinted on said front side of said sheet which extend between said first side edge and said second side edge of said sheet between said upper and lower ends of said sheet.

2. The target of claim 1 wherein said sheet has a centrally positioned crosshair imprinted on said front side thereof.

3. The target of claim 1 wherein the thickness of said crosshair is greater than the thickness of said gridlines.

4. The target of claim 2 wherein said gridlines and crosshair are colored in contrasting colors.

5. The target of claim 3 wherein said gridlines and crosshair are colored in contrasting colors.

6. The target of claim 1 wherein a plurality of concentric circles are imprinted on said front side of said sheet.

7. The target of claim 6 wherein said concentric circles have diameters of approximately 40 inches, 30 inches and 20 inches respectively.

8. The target of claim 1 wherein said vertically disposed gridlines are spaced approximately one inch from one another and wherein said horizontally disposed gridlines are spaced approximately one inch from one another.

9. The target of claim 1 wherein said sheet is comprised of a flexible paper material.

10. The target of claim 1 wherein said back side of said sheet has at least one bulls-eye target imprinted thereon and wherein said back side of said sheet has a plurality of vertically disposed and horizontally spaced-apart gridlines imprinted thereon and a plurality of horizontally disposed and vertically spaced-apart gridlines imprinted thereon.

11. The target of claim 10 wherein said bulls-eye target includes a plurality of concentric circles.

12. The target of claim 10 wherein said gridlines extend substantially completely across said back side of said sheet.

13. The target of claim 1 wherein said back side of said sheet has a plurality of bulls-eye targets imprinted thereon and wherein a crosshair is imprinted on said back side of said sheet which divides said back side of said sheet into a plurality of quadrants with at least one bulls-eye target positioned in each of said quadrants.

14. The target of claim 13 wherein a plurality of vertically disposed and horizontally spaced-apart gridlines are imprinted on said back side of said sheet which extend between said upper end and said lower end of said sheet between said first side edge and said second side edge of said sheet and wherein a plurality of horizontally disposed and vertically spaced-apart gridlines are imprinted on said back side of said sheet which extend between said first side edge and said second side edge of said sheet between said upper and lower ends of said sheet.

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