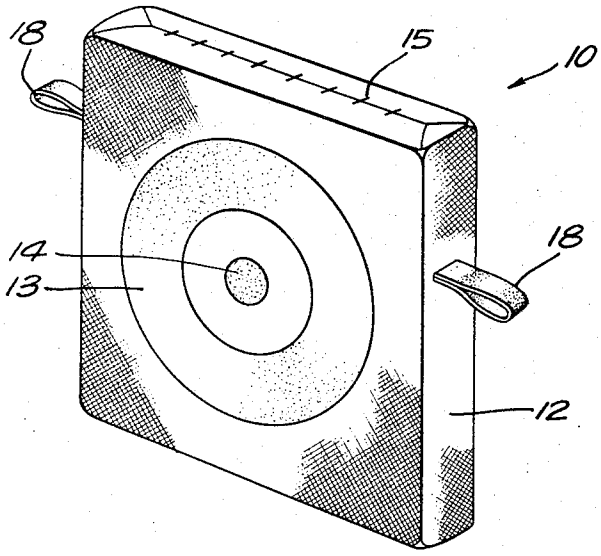
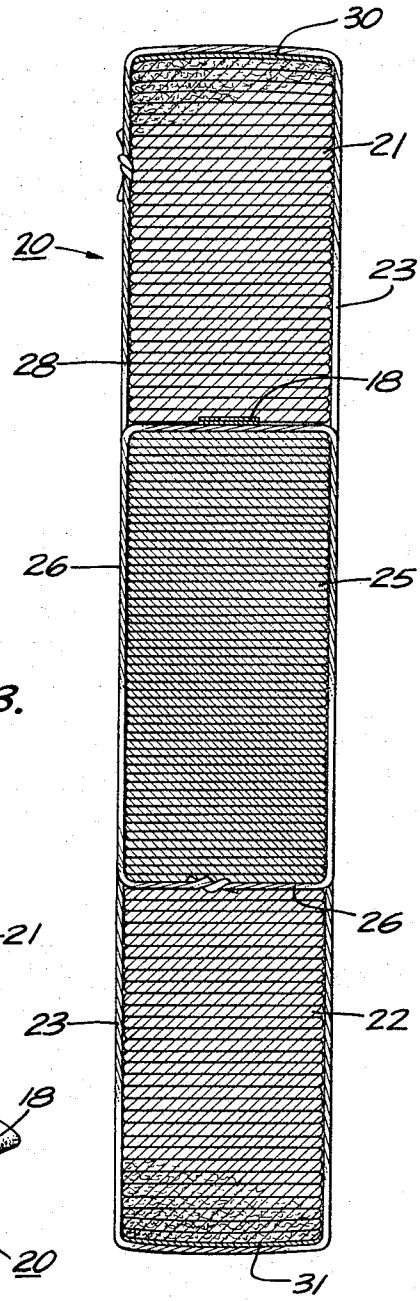
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MULTI-SECTION ARCHERY TARGET

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FIG. 1.





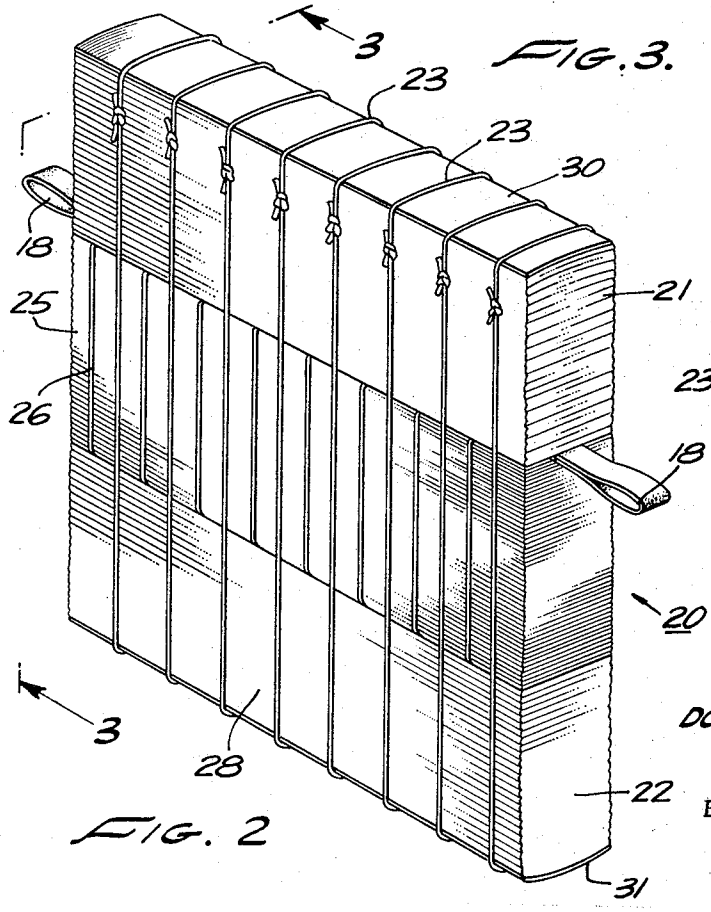


FIG. 3.

FIG. 2

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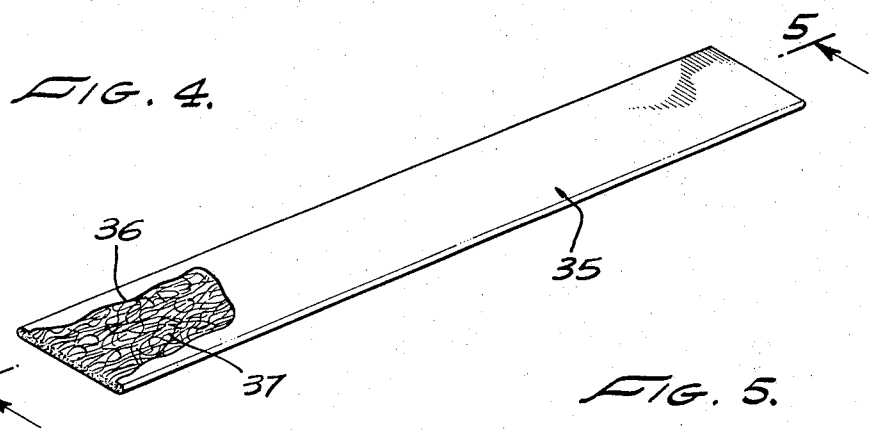
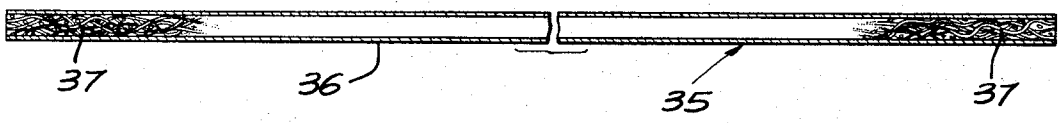


FIG. 4.

FIG. 5.



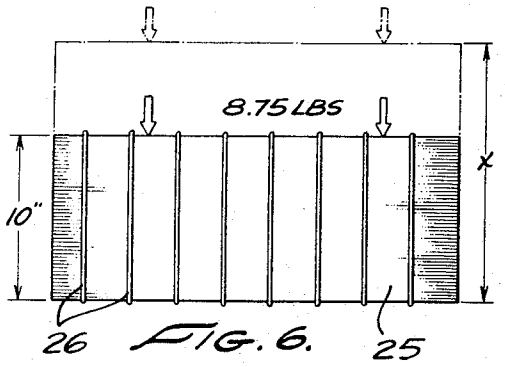


FIG. 6.

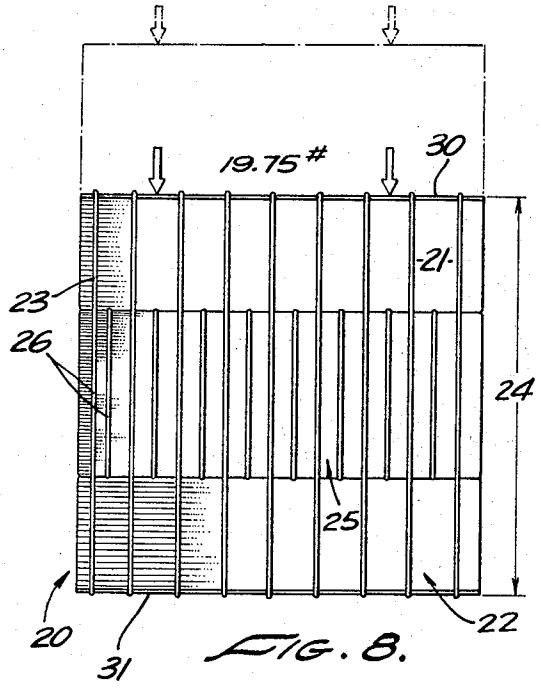


FIG. 8.

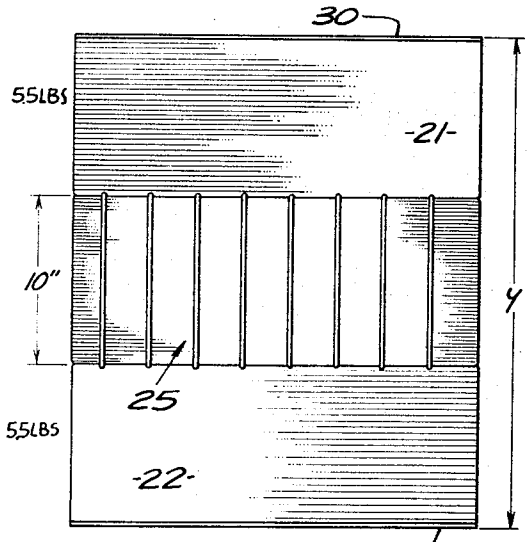


FIG. 7.

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United States Patent Office 3,329,431 Patented July 4, 1967

3,329,431

MULTI-SECTION ARCHERY TARGET

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Filed Mar. 2, 1964, Ser. No. 348,726
4 Claims. (Cl. 273—102)

The present invention relates to an archery target made of a plurality of separate sections.

One of the objects of the invention is to provide an archery target having a longer useful life than previously known archery targets.

Another object of the invention is to provide an archery target consisting of a plurality of separate, replaceable sections, whereby one section of the target which is worn out prior to the other sections may be removed and replaced.

A further object of the invention is to provide an archery target of rectangular configuration, constructed in a novel manner from a plurality of flat packets of stuffing material.

An additional object of the invention is to provide an archery target which is particularly well adapted for using excelsior as the stuffing material thereof.

The objects and advantages of the invention will be more fully understood from the following description considered in conjunction with the accompanying drawings, wherein:

FIGURE 1 is a perspective view of the presently preferred form of the invention;

FIGURE 2 is an enlarged view of the target of FIGURE 1 with the cover sheet thereof removed;

FIGURE 3 is a vertical cross-section view of the target taken on the line 3—3 of FIGURE 2;

FIGURE 4 is a perspective view, partially broken away, of an individual excelsior packet contained in the target;

FIGURE 5 is a longitudinal cross-sectional view of the packet taken on the line 5—5 of FIGURE 4;

FIGURE 6 is a front view of the center section after it has been compressed and bound;

FIGURE 7 is a front view of the stuffing assembly before the top and bottom sections have been compressed; and

FIGURE 8 is a front view of the stuffing assembly after the top and bottom sections have been compressed and bound.

Referring now to the drawings, the complete target shown in FIGURE 1 is generally identified as **10**. The main structural component of the target is a package or assembly **20** of stuffing material, which in a general sense, is of a rectangular configuration, but which in the particular illustrated embodiment is square. As best seen in FIGURE 1 the stuffing assembly **20** is covered by a bag or cover sheet **12** which is sewn together at the top with sewing strips **15**. The exterior front surface of the cover sheet **12** has color markings **13** thereon, which include, at the exact center of the target, a bull's eye **14**. A carrying strap **18** extends horizontally through the stuffing assembly **20** and projects outward from appropriate openings in the respective sides of the bag or cover sheet **12**.

The basic unit of the stuffing assembly **20** is an individual excelsior packet **35**, illustrated in FIGURES 4 and 5. The packet **35** is of elongated, flat configuration, and contains excelsior as the stuffing material, wrapped in a piece of paper which is wrapped upon itself and glued together at the juncture thereof. While the glued connection of the paper wrapping is not specifically illustrated, the configuration of the excelsior packet **35** will be recognized by those skilled in the art as a standard product long used for commercial packing purposes. The illustrated packet is approximately 24" long, 4" wide, and, when not under compression, ⅜" thick. The excelsior is preferably made

in accordance with the teachings of copending U.S. patent application Ser. No. 289,905 filed July 11, 1963.

The stuffing assembly **20** includes, in general, an upper section **21**, a bottom section **22**, and a center section **25**. In each of these sections a plurality of the excelsior packets **35** are stacked upon each other to form a generally rectangular structure whose plane is perpendicular to the planes of the individual packets thereof.

The center section **25** is formed first, as shown in FIGURE 6, and prior to being compressed has a vertical height shown in dotted lines and designated as X. In the illustrated embodiment of a target which is 24" high, 24" wide, and approximately 4" deep, the center section **25** includes a sufficient number of excelsior packets to weigh 8¾ lbs. Compressive force is applied, as indicated by the arrows at the top of FIGURE 6, and when the center section has been compressed to a vertical height of ten inches it is then bound by a plurality of inner binding cords **26**.

Thereafter the top section **21** and bottom section **22**, each including 5½ lbs. of excelsior packets, are stacked respectively above and below the already bound center section **25**. As shown in FIGURE 7 this structure has a height Y considerably more than 24". As shown in FIGURE 8 by dotted lines and arrows, compressive force is applied to compress the height of the total package to 24", and then a plurality of outer binding cords **23** are tied about the now completed stuffing assembly.

While not specifically shown in FIGURES 7 and 8, the carrying strap **18** is placed between the center section **25** and top section **21**. This relationship is clearly shown in FIGURES 2 and 3. Appropriate openings are formed in the bag or cover sheet **12** so that the ends of the carrying strap may protrude from the target, as shown in FIGURE 1. To achieve a sound structure it is preferred to utilize a pair of wooden boards, one being an upper wooden board **30** which lies on top of the top section **21**, the other being a lower wooden board **31** which lies beneath the bottom section **22**. These boards aid in the operation of compressing the excelsior packets into the final form of stuffing assembly **20** and they also prevent the outer binding cords **23** from damaging the excelsior packets at the top and bottom of the target.

One advantage of the invention is that a target of rectangular configuration is easier to use and to handle than are the conventional round targets.

Another advantage of the invention is that the higher level of compression existing in the center section **25** provides a longer useful life of that section, which receives the impact of the greatest proportion of arrows shot at the target. From simple calculation it will be seen that the density of stuffing material in the 10" center section is approximately 1.11 times the density of stuffing material in the 7" top and bottom sections.

Another advantage of the invention is that the separate sections of stuffing material can be removed after the target has been used, to replace a particular section which has been "shot out" prior to the other sections of the target.

An additional advantage of the invention is that it is particularly well adapted for the use of excelsior as stuffing material. Particularly is this true in view of the fact that it utilizes excelsior packets in the form which has been long established for other commercial purposes.

The invention has been described in considerable detail in order to comply with the patent laws by providing a full public disclosure of at least one of its forms. However, such detail description is not intended in any way to limit the broad features or principles of the invention, or the scope of patent monopoly to be granted.

I claim:

1. An archery target comprising, in combination:

a center section including a plurality of long, flat, paper-wrapped packets each stuffed with excelsior, said packets being of substantially uniform length and being stacked together to form a rectangular assembly whose plane lies perpendicular to the respective planes of said packets;

a plurality of inner binding cords wrapped about said center section packets and compressively binding the same together in the plane of said assembly;

a top section and a bottom section each including a plurality of long, flat, paper-wrapped packets each stuffed with excelsior, said packets being of substantially uniform length and being stacked together to form a rectangular assembly whose plane lies perpendicular to the respective planes of said packets;

said top section being placed on top of said center section, and said bottom section being placed beneath said center section, with the planes of the individual assemblies being substantially aligned together, the combination of said top, center, and bottom sections thus forming a substantially rectangular target;

and a plurality of outer binding cords extending around the entire target so as to compressively bind the packets of said top and bottom sections together, and to compressively bind said three sections together;

said inner binding cords being under greater tensile stress than said outer binding cords whereby said packets of said center section are of greater density than said packets of said top and bottom sections.

2. An archery target as claimed in claim **1** which additionally includes a carrying strap interleaved between two of said packets, with its two ends extending laterally outward from respective sides of the target.

3. An archery target as claimed in claim **1** which additionally includes a board covering the upper packet of said top section, and a board covering the lower packet of said bottom section; said outer binding cords being wrapped about said boards.

4. An archery target as claimed in claim **1** which additionally includes a board covering the upper packet of said top section, and a board beneath the bottom packet of said bottom section, said outer binding cords being wrapped about said boards; which further includes a carrying strap interleaved between two of said packets, the two ends of said strap extending laterally outward from respective sides of the target; and which also includes a cover sheet wrapped about said top, center and bottom sections, and said inner and outer binding cords, the ends of said carrying strap extending outward through corresponding openings in said cover sheet.

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