Sept. 10, 1963 M. GENTILE, JR 3,103,359

BONDED GLASS FIBER CUE STICK

Filed March 1, 1961

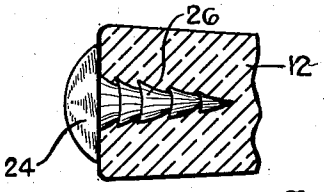


Fig. 5

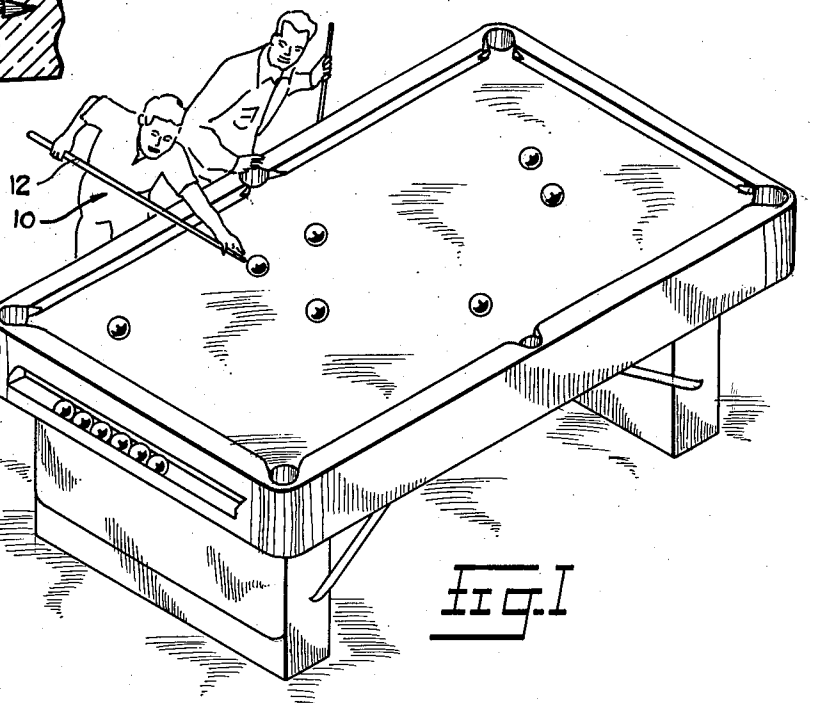


Fig. 1

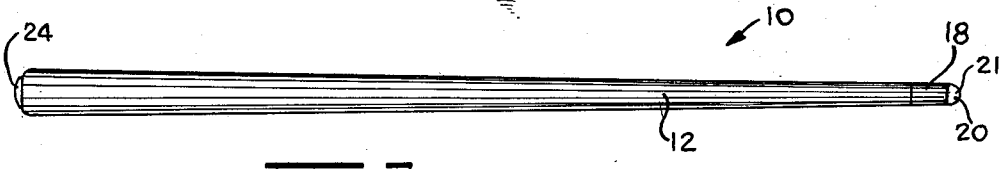


Fig. 2

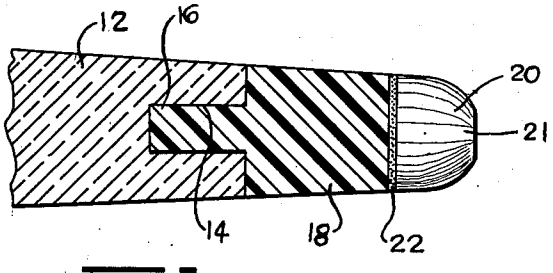


Fig. 3

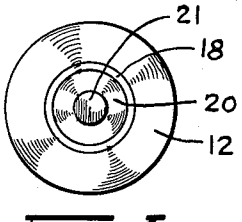


Fig. 4

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BONDED GLASS FIBER CUE STICK

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1 Claim. (Cl. 273—68)

This invention relates to cue sticks and, more particularly, to an especially constructed cue stick.

It is an object of the present invention to provide an extremely long lasting, warp-free cue stick which can be readily used in a conventional manner, and which can be reproduced at a relatively low cost.

A further object of the present invention is to provide a cue stick of the above type which is extremely lightweight, easy to handle, and which is virtually damage-proof through extensive use over prolonged periods of time.

All of the foregoing and still further objects and advantages of this invention will become apparent from a study of the following specification, taken in connection with the accompanying drawing, wherein:

FIGURE 1 is a perspective view of a cue stick made in accordance with the present invention in actual use;

FIGURE 2 is a side elevational view of the cue stick shown in FIGURE 1;

FIGURE 3 is an enlarged fragmentary cross sectional view of the front end of the cue stick shown in FIGURE 2;

FIGURE 4 is a right end elevational view of the assembly shown in FIGURE 3; and

FIGURE 5 is an enlarged fragmentary cross sectional view of the rear end of the cue stick.

Referring now more in detail to the drawing, a cue stick **10** made in accordance with the present invention is shown to include an elongated shaft **12** tapered forwardly toward the front end thereof which has a recess **14** frictionally receiving a reduced end **16** of a transition piece **18** which has a layer of glue **22** at its outermost end for securing a leather tip **20** thereto, which tip **20** has a flat end **21** for impact with the balls during use.

The opposite end of the shaft **12** is provided with a resilient wear tip **24** in the form of a button having a shank **26** of irregular configuration lockingly engaged within a correspondingly shaped recess of the shaft.

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The shaft **12** is constructed from a bonded glass fiber material, and is thus warp-free, and extremely sturdy in use. The leather tip **20** is mounted upon the end of the transition piece **18** which is readily assembled with the forward end of the shaft **12**.

It will thus be recognized that an extremely durable and easily handled cue stick **10** has been provided which can be readily used in a conventional manner for all types of play.

While this invention has been described with particular reference to the construction shown in the drawing, it is to be understood that such is not to be construed as imparting limitations upon the invention, which is best defined by the claim appended hereto.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

A cue stick comprising an elongated tapered shaft of solid bonded glass material having a circular cross section smaller at its front end than at its back end, said shaft having an axial recess in the front end thereof and a tapered recess in the back end thereof of a plurality of tapered steps forming a plurality of axially spaced inwardly extending annular ridges progressively reducing in diameter toward the bottom of such tapered recess, a transition piece connected to the front end of said shaft having a reduced projection disposed in and frictionally engaging said axial recess, a cue tip connected to said transition piece, a layer of adhesive connecting said tip to said piece, and a resilient bumper connected to the back end of said shaft and having a shank forced into the tapered recess, said shank conforming to the tapered recess and having a plurality of axially spaced outwardly extending annular ridges each engaging one of said ridges of the tapered recess.

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