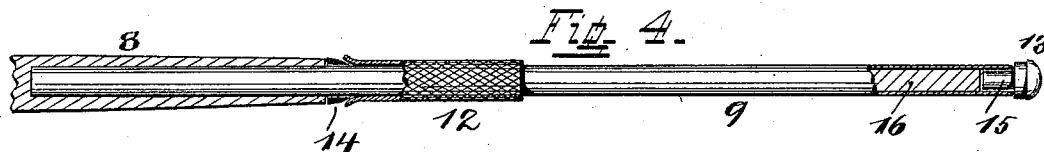
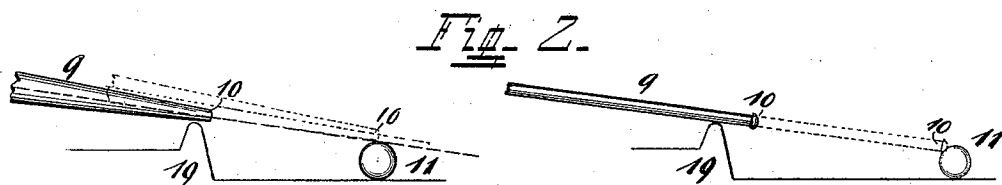
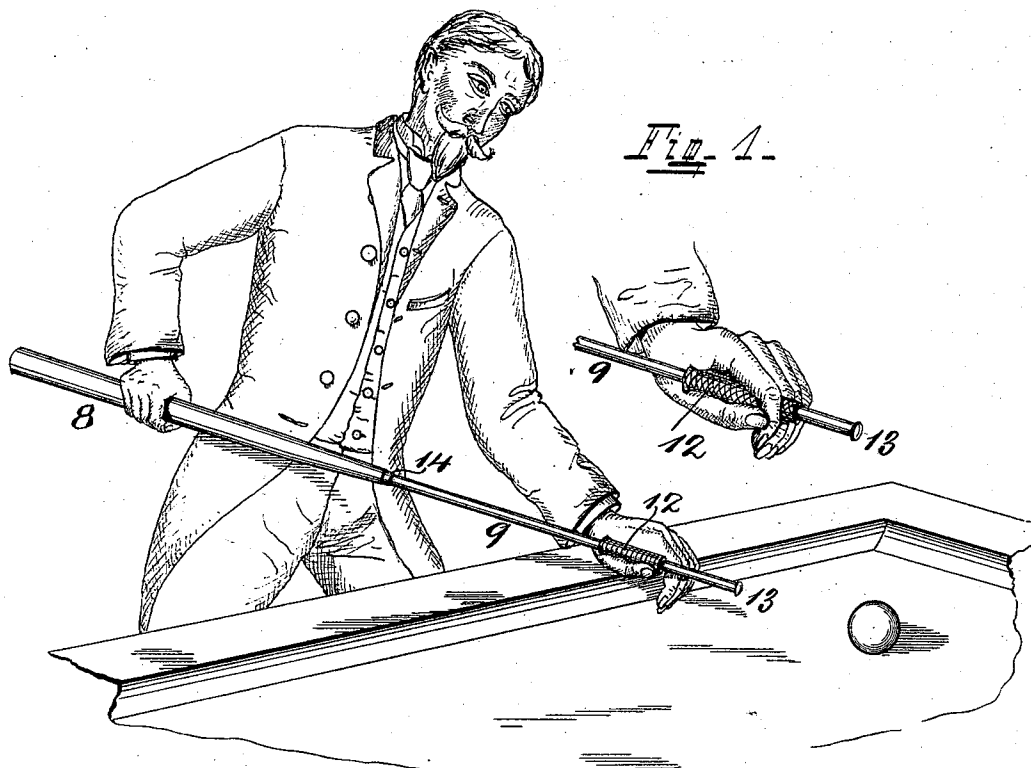


(No Model.)

G. GSCHWENDTNER.
BILLIARD CUE.

No. 529,731.

Patented Nov. 27, 1894.



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UNITED STATES PATENT OFFICE.

GEORG GSCHWENDTNER, OF CINCINNATI, OHIO.

BILLIARD-CUE.

SPECIFICATION forming part of Letters Patent No. 529,731, dated November 27, 1894.

Application filed December 26, 1893. Serial No. 494,662. (No model.)

To all whom it may concern:

Be it known that I, GEORG GSCHWENDTNER, a citizen of the United States, and a resident of Cincinnati, Hamilton county, State of Ohio, have invented certain new and useful Improvements in Billiard-Cues; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, attention being called to the accompanying drawings with the reference numerals marked thereon, which form a part of this specification.

This invention relates to improvements in billiard cues, and the object of these improvements is to make the use of this implement more convenient and also more certain in action when executing the more difficult thrusts incident to the game and the various species thereof.

My improvements comprise an attachment to the cue and the details; second in an attachment thereto, and finally it embraces the details of the construction of the latter.

In the following specification is found a full description of my invention, the same being also particularly pointed out in the claims at the end thereof, and its construction illustrated in the accompanying drawings, in which—

Figure 1, is a general view, showing one of the improved cues in use. Fig. 2, are two diagrams showing the practical effect of my improvements. Fig. 3, is an elevation of the cue, and Fig. 4, is an enlarged detail view, parts of it in section.

My improved cue instead of having substantially the present tapering, or conical form, consists as to this latter of two parts or sections, first a thicker part 8, which may be conical and substantially like the rear end of the present cue, being the part which is held by the hand which executes the thrust. The other part 9, which may be thinner than the part first mentioned, is of uniform thickness and may be of octagonal section, but is preferably cylindrical. It is that part which is supported in the other hand of a player which he holds immovable and whereby the cue is guided against a ball or a particular point thereon while being slid over such hand or through it and between the fingers of the same.

The advantage which I claim for such a cue which has this part, which might be termed its "guiding part," of uniform thickness, is that it enables the player to calculate with greater accuracy the point where the end will strike the ball, because the striking end of the cue will move toward the ball in a direction which is parallel with its center line and also in line with the line of motion or thrust. In a tapering cue the striking point will not move in such a line, but rises therefrom by reason of the swell behind it. The first of the two diagrams in Fig. 2, will show this more clearly, 10 being the striking point and 11 the point it is aimed at. 19 is the stationary support, being in reality the hand of the player. It will be observed that by reason of the taper or swell of the cue the striking point, by the time it reaches the object, has moved out of the line of thrust as intended by the player and the impact will necessarily occur above the point aimed at. For the sake of perspicuity the swell is here increased beyond the proper proportions but it is nevertheless present in practice and forms a disturbing element. In the other diagram, illustrating the improved form of even thickness, it will be noticed that the striking end never leaves the line of motion and for this reason never misses the point aimed at.

It often occurs when a player's hand is moist and especially when executing a thrust of moderate force, that the cue will slide sluggishly over the hand and stick more or less to it. To overcome this friction more force is involuntarily applied, whereby the cue receives a new impetus, but hits the ball with a harder impact than was originally intended. At the same time the soft tissues of the hand yield more or less under such increased pressure which disturbs the line of motion and tends to produce uncertainty in aim and action. I overcome this difficulty by attaching a loose, but closely fitting sleeve 12 of appropriate length to the guiding end of the cue which sleeve is either laid on the hand or held between the fingers of the same. Thereby the guiding end does not come in direct contact with the hand at all, but passes through this sleeve whereby the friction remains the same all the time and to which the player becomes used. The sleeve is also not influenced

by the moisture of the hand and more rigid and firm than the soft tissue of it, so that a reliable and safe support for the cue is furnished during manipulation. As to the material of the sleeve, anything suitable may be selected. It should be such as to be capable of assuming a smooth interior surface and be of sufficient strength to permit it to be made light and thin. Sheet-metal, preferably aluminum, celluloid, vulcanized rubber, or indurated paper, are some of the materials suggested.

The outside of the tube or sleeve should be roughened, corrugated, or in any other way suitably prepared to prevent it from sliding through or off of the hand.

To prevent the sleeve from dropping completely off of the cue when the same is reversed or held back so that its front end points downwardly, it is preferable to have a projection near the end of the latter. This is provided by letting the tip 13, project slightly sidewise beyond the cue. When some players under certain contingencies do not desire to avail themselves of the use of this sleeve, the same may be slid back toward the inner end of the straight part 9, of the cue, until it encounters a ring of soft rubber 14, the outer edge of which tapers off and over which edge the end of the sleeve is pushed. To facilitate such engagement this end of the sleeve is slightly widened. The elastic pressure of this ring is sufficient to receive and hold the sleeve while not in use. The objectionable features which this latter is to overcome are now somewhat palliated by a liberal use of chalk applied to the hand as well as to the front part of the cue, back of its tip; but as against moisture from perspiration, the relief is only temporary, besides soiling the hand and other parts of the person when inadvertently touched by such hand. Furthermore this chalking requires persistent attention and if not used with sufficient frequency the desired relief will not be obtained.

As to the construction of the cue itself, it may be all wood or partly wood and partly metal. In the first case, when all wood, it is preferable to use two separate pieces, one to each part, the straight or thinner part being socketed into the thicker part. By this construction the cue retains much better its alignment than if constructed out of one piece, partly reduced in thickness. The thinner part can also be made of metal-tubing which may be bronzed or nickel-plated. It may be filled out with wood 16, to stiffen it so as to permit the metal to be as light as possible. In the latter case I provide a permanent tip-holder 15 which is pressed into the open end of the tube and to which the renewable tip 13, is secured.

I am aware of cues where by means of a spring the front end is hurled against the

ball, such spring being usually confined within a housing formed of a sleeve through which such front-part of the cue passes. To the extent which the setting of this spring requires there occurs between this sleeve and front-part of the cue an adjustment or movement of either one upon, or on the other. Beyond this limited and fixed movement, this spring-housing cannot be adjusted like my sleeve to any position, which the hand supporting the front-part of the cue, may choose, while the other hand with force supplied from the corresponding arm pushes the cue through the sleeve. Therefore these spring-actuated cues possess the objectionable feature of exerting a constant force, which cannot be regulated like in my hand-operated cue, to suit any particular condition or length of path through which the ball is to be propelled.

Having described my invention, I claim as new—

1. An improved billiard-cue, having a loose but closely fitting sleeve on its front or guiding part adjustable thereon, adapted to rest on the hand so as to form a support for the cue which slides on and through this sleeve during manipulation, and a tip at the front end projecting all around slightly beyond the cue to prevent the sleeve from becoming disengaged.

2. An improved billiard cue, consisting of two parts, one, a thicker one, whereby it is held, and a thinner one, or guiding part rigidly secured to the first or thicker part and of even thickness throughout its length, a loose but closely fitting sleeve adjustably secured to such guiding part which latter slides on and through it during manipulation and a rubber ring 14 secured near the inner end of the front part of the cue against and partly over which, one end of the sleeve may be pressed to hold the same back when not in use.

3. An improved billiard cue, having a loose but closely fitting sleeve confined on its front- or guiding part, which latter is rigidly secured to the cue, said sleeve being of a length to cover the hand and adjustable on the front-part of the cue to any position which the supporting hand may assume for a particular thrust.

4. An improved billiard cue, the front part of which from the tip back is of uniform thickness and rigidly secured to the cue and provided with a loose but closely fitting sleeve, intended to rest on or between the fingers of the supporting hand, while with the other hand the cue is thrust through said sleeve.

In testimony whereof I affix my signature in presence of two witnesses.

GEORG GSCHWENDTNER.

Witnesses:

C. SPENGEL,
WM. KRAMER.

... יחידות

[SEAL.]

Countersigned:

JOHN S. SEYMOUR,
Commissioner of Patents.