

Dec. 4, 1923.

1,476,622

A. R. KIRK

CUE TIP

Filed Sept. 8, 1920

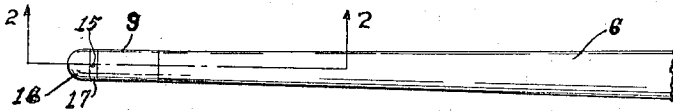


Fig. 1

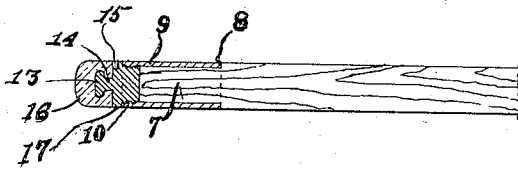


Fig. 2

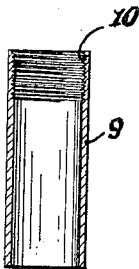


Fig. 3

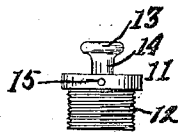


Fig. 4

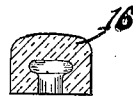


Fig. 5

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Patented Dec. 4, 1923.

1,476,622

UNITED STATES PATENT OFFICE.

ARTHUR R. KIRK, OF CUYAHOGA FALLS, OHIO, ASSIGNOR OF ONE-HALF TO HOWARD P. MOORE, OF CUYAHOGA FALLS, OHIO.

CUE TIP.

Application filed September 8, 1920. Serial No. 408,830.

To all whom it may concern:

Be it known that I, ARTHUR R. KIRK, a citizen of the United States, residing at Cuyahoga Falls, in the county of Summit and State of Ohio, have invented new and useful Improvements in Cue Tips, of which the following is a specification.

This invention relates to billiard cues and has particular reference to certain new and useful improvements in tips for such cues and to a new and improved means for attaching such tips to a cue.

Objects of the invention are to provide a resilient tip of simple, economical construction, which is provided with means whereby the same may be quickly and securely attached to the cue and quickly and easily removed therefrom.

A further object is to provide a tip of the character above indicated which will be extremely efficient in use, and to provide means whereby the same may be detachably secured to a cue and positively held thereon against unintentional removal.

The above objects are accomplished and other ends are attained by the novel construction, combination and arrangement of parts hereinafter described and illustrated in the accompanying drawing, which forms a part hereof and in which I have shown a preferred embodiment of the invention, it being understood that the invention is capable of various adaptations and that changes, variations and modifications may be made or substitutions resorted to which come within the scope of the claims hereunto appended.

In the drawings in which similar numerals of reference are employed to designate corresponding parts throughout the several views,

Figure 1 is a side elevation of the end portion of a billiard cue provided with a tip constructed in accordance with this invention.

Figure 2 is a central, longitudinal sectional view of same taken as indicated by the line 2—2 of Figure 1.

Figure 3 is a central, longitudinal, sectional view of the ferrule employed in carrying out the invention.

Figure 4 is a side elevation of the attaching portion of the tip proper, and

Figure 5 is a central, sectional view of the resilient portion of the tip proper which in use is vulcanized to the base portion, but

is shown separately to more clearly illustrate the invention.

Proceeding now to a detailed description of the invention, with reference to the accompanying drawing, the numeral 6 is used to denote a cue rod which is of ordinary, straight, tapered construction. The rod 6 is provided at its small end with a reduced portion 7, thus forming the offset shoulder 8. The numeral 9 is used to indicate a cylindrical ferrule which is provided adjacent the outer end thereof with internal screw threads 10. The ferrule 9 is constructed so as to fit snugly over the reduced portion 7 of the cue rod 6, so that the inner edge of the ferrule will seat against the shoulder 8. The ferrule 9 is substantially longer than the reduced portion 7 so that when fitted thereon, it will extend beyond the reduced portion 7 which fills the bore of the ferrule to the screw threads 10 so that the tip portion may be screwed therein as hereinafter set forth. The cue tip comprises a resilient pad 16 vulcanized to the tip base 11. The tip base 11 is composed of metal and comprises a cylindrical threaded portion 12 which is provided with external screw threads adapted to operatively engage the screw threads 10 of the ferrule and be screwed into said bore with the inwardly extending end of the base portion 11 positioned against the end of the cue rod. The central portion 17 of the tip base 11 is enlarged so as to form a disk of the same diameter as the ferrule 9 and a radial bore 15 is formed in said disk for the purpose of providing a seat for a spanner wrench which may be used as hereinafter set forth. The disk-like portion 17 is provided with an outwardly protruding portion 14 which is coaxially arranged in relation thereto and is provided with a suitable head 13.

The numeral 16 is used to denote a resilient tip pad which is vulcanized to the disk 17 and around the protuberance 14. The resilient pad 16 is formed by placing the desired quantity of unvulcanized rubber composition on the disk 17 and around the protuberance 14 and then shaping the pad and subjecting the same to a vulcanizing heat for a sufficient period of time to insure the desired degree of vulcanization.

In use, a cue rod 6 is equipped with the ferrule 9 and the tip base 11, having a soft

pad 16 vulcanized thereto, is threaded into the bore of the ferrule until the disk-like portion 17 of the tip is in contact with the end of the ferrule and the end of the base 11 is against the end of the cue rod 6. A spanner wrench formed to fit around the disk-like portion 17 with its pin seated in the bore 15 may be used to tighten or loosen the tip from the ferrule 9. The composition of the soft pad 16 may be varied to secure any desired degree of elasticity and various tips may be employed with one cue rod and the same interchangeably used thereon.

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

1. A billiard cue comprising a tapered cue rod, a ferrule fitted on the small end thereof so as to extend there-beyond, internal screw threads in said ferrule a tip base having an externally threaded portion adapted to be screwed into said ferrule, an outwardly protruding portion coaxially

arranged on said base, a head on said protruding portion and a pad of resilient material vulcanized to said base and to said protruding portion. 25

2. A billiard cue comprising in combination a cue rod, a ferrule fitted over the end thereof so as to project there-beyond, internal screw threads in the outer portion of said ferrule, a tip base having an externally threaded portion adapted to be screwed into said ferrule, said tip base having a disk-like central portion which is provided with an integrally formed protuberance which projects coaxially therefrom, a soft pad of rubber composition formed on said disk-like portion and around said protuberance, the said pad being secured to said disk and to the said protuberance by vulcanization. 30 35 40

In testimony whereof I have hereunto set my hand.

ARTHUR R. KIRK.