

No. 879,477.

PATENTED FEB. 18, 1908.

C. H. KRÜGER.
TENNIS RACKET.
APPLICATION FILED MAR. 12, 1906.

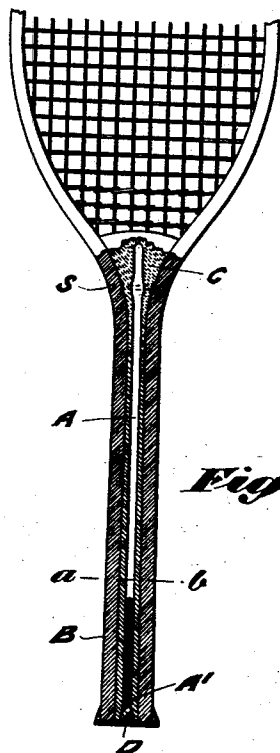


Fig. 1.

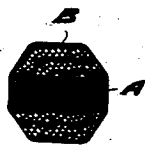


Fig. 2.

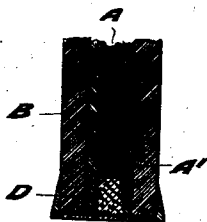


Fig. 3.

WITNESSES

W. P. Burke
John A. Percival

INVENTOR

Charles Henry Krüger

BY *Richardson*
ATTYS.

UNITED STATES PATENT OFFICE.

CHARLES H. KRÜGER, OF BRADFORD, ENGLAND.

TENNIS-RACKET.

No. 879,477.

Specification of Letters Patent.

Patented Feb. 18, 1908.

Application filed March 12, 1906. Serial No. 305,736.

To all whom it may concern:

Be it known that I, CHARLES HENRY KRÜGER, a subject of the King of Great Britain and Ireland, whose postal address is 7 Manor Row, Bradford, in the county of York, England, have invented certain new and useful Improvements in Tennis-Rackets, of which the following is a specification.

This invention relates to improvements in tennis rackets, and has for its object the application of a moving weight to the handle of the racket, in such a manner that the balance of the implement may not be impaired, and that the striking power may be considerably increased, such additional power being applied at the desired time.

In describing my invention in detail, reference is made to the accompanying sheet of drawings, similar letters indicating similar parts, in which,

Figure 1 represents a sectional elevation of a portion of a tennis racket, showing my improvement applied thereto. Fig. 2 represents an enlarged cross section on line *a. b.* in Fig. 1. Fig. 3 represents a detail herein-after referred to.

In carrying out my invention, I show and describe the same as applied to a tennis racket, though it will be obvious that my improvement may be applied to other implements for games and exercises, such as hockey sticks, cricket bats, baseball clubs, Indian clubs, golf clubs, and the like.

My improvement consists in the application of a moving weight to the interior of the handle or like of the desired implement. In the case of a tennis racket a hole or channel A is bored or otherwise suitably formed in the handle B, such hole or channel being of suitable diameter and length, extending preferably into the lignum vitæ making up piece C. Into the channel A I insert a quantity of mercury which will readily travel up and down the channel, said mercury being very quick and certain in its action, and not liable to stick, the amount depending

on individual choice. The channel may be bored in existing rackets, and after the desired weight-medium has been placed therein, the end A' of the channel stopped up with a stopper or plug D, and the end of the handle finished off in the ordinary manner, as shown in Fig. 3; or the channel A may be formed in the handle B and making up piece before the racket is put together.

The plug D may take the form of a screw plug, and be arranged so that the user of the implement may remove and refix the same should it be found necessary to alter the weight. It is desirable to have the channel project as far into the piece C as possible, and where a screw such as S is used, the channel A should be of larger diameter than the screw. In the case of a cricket bat, the channel would be formed in the blade and extend towards the base of the same.

In implements provided with my improvement, a great increase in weight and striking and driving power may be obtained, without the balance being materially affected and in the case where mercury is used, the additional weight up to, say 5 ounces, in a 13 ounce racket, will be hardly perceptible to the user, and in many instances the movement of the mercury, when the implement is being used for striking will materially assist the stroke.

What I claim as my invention is:—

In implements for games and exercises, a tennis racket handle including the lignum vitæ making up piece, said handle having an internal channel therein extending into the lignum vitæ making up piece and a weight freely movable in said channel said weight being composed of mercury.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

CHAS. H. KRÜGER.

Witnesses:

LEWIS WAUGH,
JOSEPH F. KIRBY.