(No Model.)

R. REACH.

RACKET.

No. 294,271. Patented Feb. 26, 1884.

Fig. 1

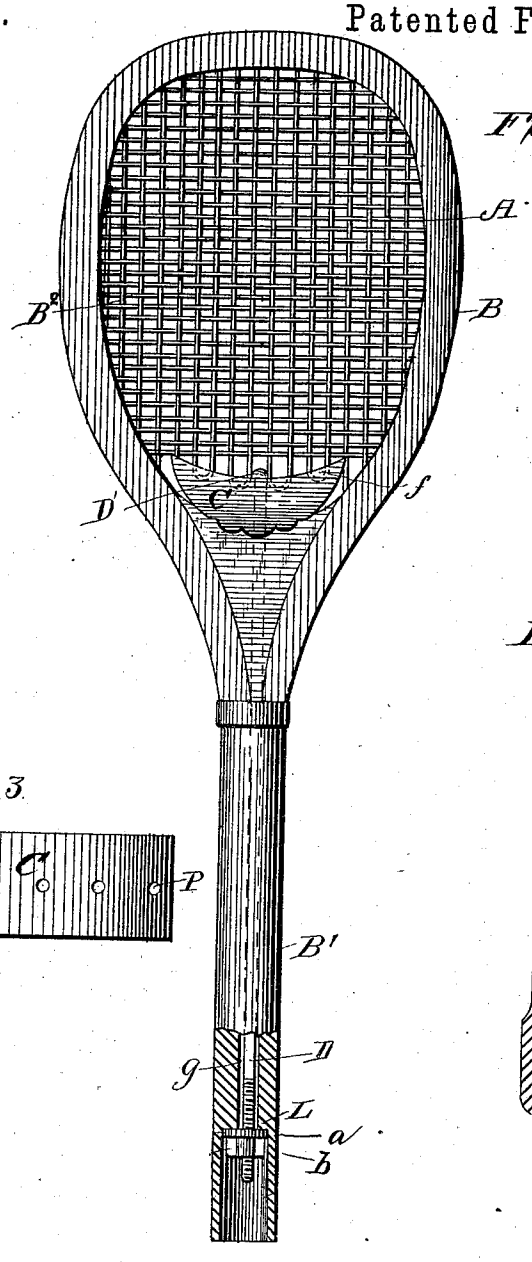


Fig. 2

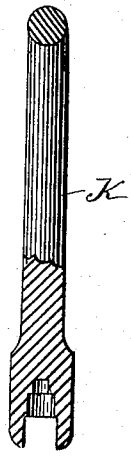


Fig. 3

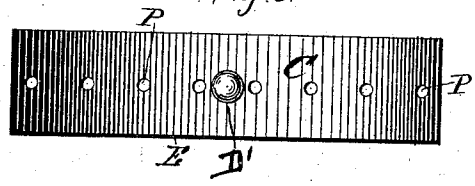
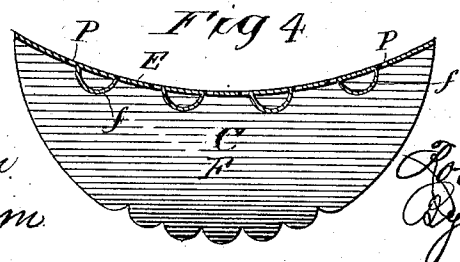


Fig. 4



WITNESSES

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UNITED STATES PATENT OFFICE.

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RACKET.

SPECIFICATION forming part of Letters Patent No. 294,271, dated February 26, 1884.

Application filed December 3, 1883. (No model.)

To all whom it may concern:

Be it known that I, ROBT. REACH, a citizen of the United States of America, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Rackets, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention pertains to an improvement in rackets; and it consists in the net A, inclosed in the frame B, handle B′, tongue C, having semicircular arches *f*, tightening-rod D, having washer *a* and nut *b*, and in the combination and arrangement of the parts, as hereinafter more fully shown and described.

In the drawings, Figure 1 is a plan view, partly in section; and Figs. 2, 3, and 4 are detail views.

In constructing my racket I employ the usual frame, B, having rigidly secured thereto the handle B′, and, as a means for taking up the slack strands of the net A, secure to the tightening-tongue C the longitudinal strands B^2, which are most exposed to the strain incident to the use of the racket.

The tongue C consists of the curved or concaved plate E, having the tapering wings F at right angles to it. The plate E is provided with a series of perforations, P, for reception of the strands of catgut composing net A, and each pair of perforations has between them a semicircular arch, *f*, cast integral with plate E, which arch prevents the strands B^2 from being worn or cut against the metallic edges of the perforations P. It will be observed that strands B^2 have their bearings on the arches *f*, and that not only is friction thus avoided, but that the strands are thus prevented from being worn and cut by the continual tension or strain and reaction to which they are subjected in practice.

The tightening-rod D is passed through a suitable orifice provided in plate E, and its head D′ holds the tapering tongue in position. The tightening-rod D is located in the longitudinal orifice *g* provided in handle B′, and held rigidly in place by the nut *b* and the washer *a*, which latter spans the rod-orifice *g*, and is held against the shoulder L, provided in the handle, by the nut *b*, the orifice in the handle from the shoulder to its end being enlarged, as shown. The washer *a* is passed over the end of the tightening-rod D, at which point the rod is threaded for reception of the nut *b*. Thus constructed, when it is desired to tighten slackened strands of the net, the key K is employed for rotating the nut *b*, which effectually accomplishes the purpose.

I do not confine myself to the precise method of tightening the strands composing net A, as it is obvious that a circular nut having a corrugated periphery secured on a similar tightening-rod, and having its corrugated periphery projecting transversely outside of a similar handle-orifice, and arranged in connection with a washer abutting against a shoulder formed in an orifice-handle, may also be employed to produce a similar result; or the appliance for tightening may be arranged at the head or top of the racket and adjusted with thumb-screws, whereby the same result may be reached.

Having thus described my invention, what I claim is—

1. The combination of handle B′, having orifice *g* and shoulder L, nutted screw-rod D, tongue C, having semicircular arches *f*, and frame B, substantially as shown and described.

2. The tongue C, having perforated plate E, wings F, and arches *f*, for tightening the strands of net A, in connection with tightening-rod D, substantially as shown and described.

3. The tongue C, having arches *f* to protect the strands of net A against being cut or worn by plate E, substantially as shown and described.

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

ROBERT REACH.

Witnesses:

JOHN I. ROGERS,

THOS. J. PRATT.