This invention relates to improvements in the manufacture of rackets for the game of “Ping pong” or tennis racket and its object is to perfect the construction of “Ping pong” or tennis racket particularly at the joint between the relatively thin part forming the bat and the relatively thick part forming the handle.

The invention will best be understood from the following description with due reference to the accompanying drawing, in which:

Figures 1 and 2 are views, in front and side elevation, respectively, of the preferred form of the improved racket;

Fig. 3 is an exploded view, in perspective, of the form of the racket shown in Figs. 1 and 2; and

Fig. 4 is a view, in perspective, of a modified handle.

In the embodiment of the invention illustrated in Figs. 1 to 3 the bat 10 is shown in the usual oval shape and having, at one end of the major axis, a projection 12 for joining with a handle 14. The bat is board-like and relatively thin as compared to the handle the cross-section of which is usually octagonal to provide a better grip and the two sides that lie parallel to the faces of the bat are beveled, as at 15, to avoid a shoulder. Heretofore the bat projection 12 has ordinarily been fitted into a transverse slot routed into one end of the handle and the two parts secured together by nails.

While it would naturally be supposed that the greatest strain on the joint between the bat and the handle would come from batting the Ping pong ball to and fro this is not the fact. Players, in the excitement of the game, will knock sharply on the table, floor or wall with the edge of the bat while urging their opponents to win if they can or while giving encouragement to a partner. This form of showing confidence in oneself is contagious and, as a result, all of the rackets in use are subject to a severe strain through the joint in a direction to knock the bat askew relatively to its handle. Nails, dowels and the like securing means have been ineffective to withstand rotation of the bat within the handle slot.

A solid and secure jointer of the bat to its handle, found in practice to be adequate to withstand the strains referred to above, is achieved by the present invention in the following manner:

The projection 12 on the bat is slotted, as at 17, providing a spaced pair of handle joint legs 16 and 18. The end of the handle, proximate to the bat, is provided with a pair of longitudinal joint grooves 20 and 22 each of a width to receive the bat joint legs with a driving fit, routed in opposite edge faces leaving spacing material in the form of a central leg 24 dimensioned to fit within the slot between the joint legs at the end of the bat. In order to provide a maximum of strength to resist the blows of the bat against the ball while play is proceeding the outer end of the leg 24 may be cut off forming wings 26 and 28 at the beveled sides of the handle that will overlap the base of the slot 17 and, by embracing the sides of the bat throughout the full width of the handle, will give added support to the bat in the desired direction.

While a shortened leg 24 is desirable it is not essential and the handle 14 may be provided with the side grooves 30 and 32 providing a central leg 34 having its end flush with the beveled end of the handle, as shown in Fig. 4.

In either form of handle the length of the central leg is substantially that of the slot 17 in the bat so that a tight bearing is obtained by the joint leg on all surfaces formed by the grooves and central leg of the handle. Thus, contact of the inner faces and ends of the bat joint legs with the sides of the handle leg and the ends of the handle side grooves, respectively, secures the two parts in a manner effectually to resist any turning of the bat in its own plane relatively to the handle, even under severe edge blows on the bat.

The nature and scope of the present invention having been indicated and its preferred embodiments having been specifically described, what is claimed as new, is:

A table tennis racket comprising a bat and a handle, said bat being relatively thin as compared to the handle, and provided with a relatively narrow extension at one side thereof, said handle having a pair of longitudinal joint grooves in opposite edge faces at the end that is proximate to the bat and dimensioned to receive tightly two joint legs formed by slotting one end of the bat approximately the length of said narrow extension, the slot between said bat legs receiving a central thrust lug formed by the integral material lying between said handle grooves, said central thrust lug being substantially as long as the slot between said bat joint legs and extending approximately to the end of the handle to form a long abutment to thereby take up all the edgewise thrusts against the bat and thus render extraneous thrust receiving devices unnecessary.