My invention relates to tapes for marking the division lines of courts for the game of tennis or for any other game to which tapes of this type may be applicable.

The invention has for its object primarily to provide a new and improved tape and means for fastening the same in place which are so constructed and arranged that the tape will have a much longer service life than tapes heretofore in use.

A further object is to provide a tape which is more easily secured in position upon the court and which will be maintained in perfect alignment notwithstanding the heavy wear and tear to which it is subjected during play on the court.

Heretofore in tennis court maintenance the cost of the marking tapes has been excessively high owing to the fact that they became tattered and torn and displaced from their correct alignment and had to be repeatedly renewed during each playing season. Tennis tapes are usually stretched over ground courts, the top surfaces of which are composed of clay, cinders, stone dust, sand or turf and the tapes are fastened at their ends by pins driven into the ground while the portions intermediate these ends are secured by wire staples, the latter being driven into the ground in position straddling the tapes. These staples are spaced from 6 to 12 inches apart and clump the entire width of the tape to the ground or base with the result that little or no play of the tape is permitted. The consequence is that each tape, owing to the expansion and contraction caused by wet and dry weather, is placed under very severe stresses and strains and becomes tattered and torn in a very short while. Another factor which causes even greater damage to the tape is the rotting of the cotton fabric caused by corrosion of the staples. Rust is one of the greatest enemies of cotton fabric and reduces tensile strength of the fabric to a point at which it is broken when subjected to the slightest strain. Consequently when a staple is employed the entire width of the tape is impaired. This combined with the abrasive action of the sand, stone dust and the like which work between the top surface of the tape and the bar of the staple bearing down upon the same rapidly cuts the tape across its entire width. As a result tapes which should last from two to three months become useless frequently in less than a month. Attempts have been made in the past to provide staples which would be rustproof but none of these attempts have provided a satisfactory solution of the difficulty. Two instances which may be cited are galvanized staples and copper staples. In the first instance the film of the galvanizing metal usually became impaired at the bend of the staples and corrosion was the result. In the second instance corrosion was overcome but such great difficulty was experienced and so much time was lost in driving the comparatively soft copper staples into position that they were not considered as satisfactory as the galvanized staples.

The present invention, it is believed, will provide a solution of these difficulties. My improved tape when secured in position upon a court will be maintained at all times in its proper alignment and at the same time normal expansion and contraction will be permitted throughout the length of the tape, and the contacting area of the metal fastening devices with the cotton fabric of the tape will be reduced to a very small fraction of the width of the tape so that in the event of any corrosion taking place the effect of such corrosion on the tape will be negligible.

For full comprehension, however, of my invention reference must be had to the accompanying drawing in which similar reference characters indicate the same parts and wherein:

Figure 1 is a plan view of a tennis court illustrating my improved tape and fastening means therefor;

Figure 2 is a plan view drawn to a larger scale of a portion of my improved tape;

Figure 3 is a sectional view taken on line 3-3 Figure 2; and

Figure 4 is a sectional view taken on line 4-4 Figure 2.

Figure 1 illustrates a tennis court having standard dimensions and consisting of side line tapes 2 and 3, each seventy-eight feet in length, base line tapes 4 and 5 thirty-six feet in length, service side line tapes 6 and 7 disposed parallel to the side line tapes 2 and 3 and having the same dimensions as the latter, service line tapes 8 and 9 extending between the service side line tapes, each twenty-seven feet in length, and a half court line tape 10 forty-two feet in length, the latter extending between the service line
tapes. Each tape consists of a unitary strip of cotton fabric preferably one and a half inches in width and each end of the strip is folded under and turned in as at 12 and 13. Each tape is stitched as at 13 to provide a reinforced end in which a comparatively large rustproof metallic grommet 14 is mounted. The tapes for marking the side lines and half court line are provided with these large grommets at their ends only, but the remaining tapes are also provided with similar grommets 15 at the points at which they are intersected or joined by other tapes, the base line tapes having two intermediate grommets at the junction points of the service side line tapes therewith, and each of the service lines having a grommet at the junction point of the half court line therewith. Each of these grommets is mounted in the tape with its centre coinciding with the longitudinal median line of the tape and each presents a circular opening 16 through which a headed pin 17 may be driven into the ground, the openings being flared to receive the head 17 of the pin so that a flat playing surface will be provided and the danger of deflection of the ball when in play, as experienced with the staples usually used, eliminated.

The fastenings at these points are not sufficient to maintain the tapes in their proper alignment. The alignment of the tapes is of extreme importance and it is essential that means be provided which will maintain each tape in position throughout its entire length.

To this end the portions of each tape intermediate the large grommets are provided with a multiplicity of comparatively small rustproof metallic grommets 18 spaced preferably from 8 to 12 inches apart and located in staggered arrangement on opposite sides of the longitudinal median line of the tape, each of these grommets having comparatively flat circular flanges 19 which grip the tape between them and through the openings presented by these grommets pins 20 preferably of rustproof material having flat heads 21 are driven into the ground.

This construction and arrangement of parts is believed will overcome many of the difficulties experienced with tapes now in use. In the first place the contacting area of each metal fastening is reduced to a minimum, the small grommets being preferably not larger than say three-eighths of an inch in outside diameter, in fact satisfactory results have been obtained with grommets one-quarter of an inch in outside diameter. As a result any rotting of the tape which is caused through corrosion of the fastening pin, is confined to a small fraction of the width of the tape and as this area is located adjacent one of the side edges the tape still retains sufficient strength in the remainder of its width to prevent the breaking at this point which inevitably occurs when a staple is used. If a rustproof pin is employed corrosion is entirely prevented. Secondly the staggered arrangement of the small grommets permits expansion and contraction of the tape and thus relieves the tape of the severe strain to which tapes now in use are subjected. And thirdly the tape is more easily and quickly fastened in place and when so fastened will not under normal conditions become displaced from its proper alignment.

What I claim is as follows:

1. A tape for a tennis court having a comparatively large rustproof metallic grommet at each junction point of the tape with other tapes of the tennis court and a multiplicity of comparatively small metallic grommets spaced throughout the length of the tape and between the large grommets, said large grommets being located with their centres coinciding with the longitudinal median line of the tape, and the smaller grommets being located alternately on opposite sides of said line.

2. A fabric tape for a tennis court having a comparatively large rustproof metallic grommet at each junction point of the tape with other tapes of the tennis court and a multiplicity of comparatively small metallic grommets spaced throughout the length of the tape and between the large grommets.

3. In a tennis court the combination with a unitary flexible marking tape, comparatively large metallic grommets mounted in the tape at the junction points of the tape with other tapes of the tennis court, a multiplicity of comparatively small metallic grommets mounted in the tape and spaced throughout the length thereof between the large grommets, and headed pins extending through said large and small grommets with the heads of the pins clamping the grommets to the court base, substantially as described.

In testimony whereof I have signed my name.

ROWLAND H. KAYSER.