

## Shooting at Bird-Men with the New French Guns

**I**F you have ever shot ducks on the wing with a shot-gun, you have experienced some of the difficulties of the artillerymen who handle anti-aircraft guns on European battle-fields. Your practiced bird-shot aims a little ahead of his prey. Beyond this time allowance, he considers nothing. He fires point-blank at his mark.

And so it is with the man who fires shrapnel at artificial birds soaring at a height of a mile and more. His task is far more difficult than that of the duck hunter. The allowance which must be made for the movement of the air-man and the time required by the projectile to fulfill its mission is not so easily gaged as it is with a fowling piece on the ducking ground.

Before the present war, not a single anti-aircraft gun could be fired point-blank at an aeroplane in the air. The necessity of that proceeding seemed so obvious that I pointed it out more than once before 1914. That it has indeed become essential the accompanying illustration abundantly proves. Compared with this well-constructed and easily handled weapon the anti-aircraft guns with which European armies were experimenting before the war, seem ridiculously awkward. They could not be fired point-blank, for example; they had to be sighted around a corner, as it were, inasmuch as the marksman had to keep his eye glued on a reflecting prism. It was necessary to find the range and therefore to lose valuable



A new gun, so mounted that it can be fired at the steepest angle. A perforated weight counterbalances it

seconds—something which is altogether unnecessary in point-blank firing.

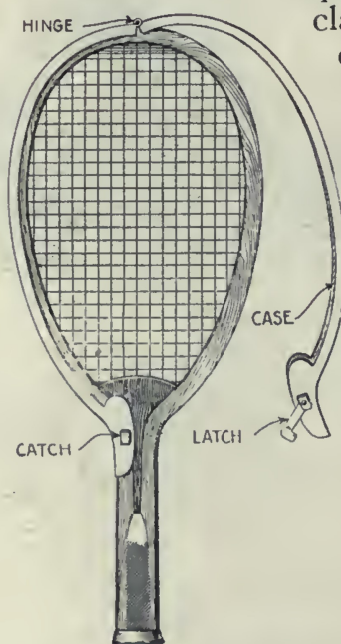
The gun pictured, a French design, is so mounted that it can be fired at the steepest angles. It is so counterbalanced (note the perforated weight at the right) that it can be swung about with the utmost ease. The position of the marksman shows that he sights as

directly as if he were manipulating a telescope instead of a gun.—CARL DIENSTBACH.

## A New Press for Preventing the Tennis Racket from Warping

**T**O prevent the wood of tennis rackets from warping, a press is used consisting of perfectly straight brackets clamped on the racket when it is not in use. The brackets generally used to-day, however, require considerable adjustment to clamp them properly. They consist of a pair of trapezoidal pieces of well-seasoned wood which are held flat against the racket on either face by four wing-nuts which clamp them down and which must be screwed to exactly the same tension.

A far simpler bracket has been invented by Fred Ricords, of Brooklyn, New York. Instead of face brackets, two side brackets semi-elliptical in shape are used. They take the contour of the sides of the racket when closed together. The brackets are made perfectly straight longitudinally, and when they are fitted on the sides, they hold the wood so that it cannot warp.



The hinged brackets fit the sides of the racket, holding it rigidly straight