But it not only increased the efficiency of the surfaces but also the lateral stability. A little reasoning will show that it shielded the marginal portions of the wings from being lifted by the air current unless it came straight from the front. The effect of side gusts was thus minimized from the outset.

Moreover: The effect of shoving the machine sideways, which might be expected to some slight degree from a side gust striking the "spindle-shaped" body represented by the side elevation of the machine, tended further to decrease the excess of lift (on the side first struck) it would have produced in machines of the ordinary type.

The reason is very clear: The machine would thus yield to the impulse, and that means, that its lift, in this sideways sense, would be diminished in much the same way as that of a kite of which the flying line has been severed, and which is receding before the wind. Also this yielding of the machine might cause a certain compensating "pseudo-wind gust" from the opposite side at the moment of the first impact, as the machine might be itself pushed sideways against air, which, in the lateral sense, was yet "still" during the first instant.

In the "Red Wing" the upper wing-tips overlapped the lower, and there was therefore more down-bent tip-surface than compensating up-bent one. The effect was therefore like having a plane with down-bent tips, and it is known, that this shape is really the best for side equilibrium, for the simple reason that a side gust which naturally tends to lift the side it strikes is neutralized by the downward pressure it exerts at