

at the same time on the down-bent side tip. This is no mere theory, but the outcome of practical experience with the Wright gliders. So even the "Red Wing" possessed evidently a high degree of automatic lateral equilibrium.

The excellence of the tip-control since introduced and its superiority in not producing any one-sided drift and not requiring any compensating action of the rear rudder, over the Wright Brothers tip-control is evident. It is also, in the last machine the "Silver-Dart", fully as powerful as the Wright's device. What the moveable tips may comparatively lack in surface, is made up by their greater leverage, being disposed at the ends of longer and narrower wings.

It is most significant for the keen judgment which has controlled the Hammenspert experiences, and which has so fully made the best of its experiences, that the Wright Brothers views about the fallacy of seeing in a rear cell a really beneficial stabilizer under any but exceptional conditions, were arrived at independently.

Similarly it was found, that the horizontal front rudder, as well as the vertical rear rudder had to be powerful and capable of exerting ^uvery strong effect in emergencies.

The outcome of the development gone through in three tentative constructions seems, that aeroplane No. 4, the "Silver-Dart" has become a machine which reaches fully the level of the Wright flyer.

There might be unfinished points: The exact proportions of the leverage in the rudders to their surface and to the measurements and proportions of the whole machine might not yet have been hit. There might be avoidable dead resistance in