

approached that degree of mastery which Lilienthal once acquired by an iron perseverance in practicing with his primitive apparatus. What would he say to-day at the almost superstitious fear with which Farman and Delagrangé are trying to evade even the least breath of wind. He, who once judged Maxims' machine so severely only "because it could not fly even in a light wind"! It is worth while, by the way, to remark that Lilienthal's apparatus, exactly on account of its primitive simplicity was decidedly superior to the Farman type. The dihedral angle of the supporting surfaces and the large rear cell of the latter render its flight in a calm unusually easy, but are such a hindrance in a wind, that with those machines it becomes altogether a riddle, how and when the art of flying in a wind (without which a lightning fast flying machine has less practical utility than the smallest slow motor balloon) will be learned! For Farman's machines this seems altogether impossible, because, for instance, the enormous leverage of the rear cell would paralyze the efforts of the front control to fight the wind gusts. Lilienthal's surfaces were simply neutral, without help and without hindrance, for the stability. His displacement of the center of gravity was a too tiresome method of balancing, but nobody has yet flown so boldly and so grandly in a strong wind, as he, and the brothers Wright needed only to replace the shifting of heavy masses by the lightning fast movements of steering surfaces to turn the Lilienthal machine in principle into a far greater perfect flier, indeed, their ambitions were only attained because of a Lilienthal-like perseverance!