

FIFTY YEARS AGO

At a meeting of the Aeronautical Society, held on Friday last at the Society of Arts, under the presidency of Lord Mountmorres, Mr. G. L. O. Davidson read a paper on the subject of mechanical flight, entitled "The Flying Machine of the Future." He asserted that a machine made by man would fly, as do birds, if so constructed as to comply with the laws of nature with which birds complied. He did not suggest that the intermittent or reciprocal movements of birds' wings must be imitated, but he pointed out that no bird or flying creature had any motion, reciprocal or other, by which it attempted to screw itself horizontally through the air, as a fish screwed itself through water with its tail, and submitted that it was absolutely at variance with the laws of nature to employ as a substitute for the reciprocal action of birds' wings a screw propeller designed to push a structure horizontally through the air. That had been the general line of experiment during the last few years, but he was convinced that no more practical results would be obtained by aerodromes driven through the air by propellers than were now attained by balloons. He proceeded to give a general idea of the nature of the air-car designed by himself. He did not profess to be the first to think of raising a structure in the air by rotary lifters or of designing a machine to glide forward through the air, but he believed he was the first to attempt to combine the two and to add an automatic method of retaining equilibrium. His machine had two sets of aerocurves. The rotary ones, inside the fixed outspread ones, were forced through the air at an angle upwards by energy applied direct from the engines, thus giving a vertical lift, while the fixed ones afforded support in gliding forward. By experiment he had been able to find a lifter of a satisfactory shape, such that it could lift, even when of so small a diameter as 4 ft., a weight greater than that of the structure required to contain it and the driving engines.—*The Engineer*, 1st July, 1898.