

FUTURE AIR TRAVEL:
By G. H. Curtiss.

The theory upon which many aviators are working is that the long narrow surfaces are most efficient, but with this form of surface the weight increases in greater proportion than the lifting power and the structure becomes weaker as its size is increased. It is this difficulty which is overcome by means of Dr. Bell's tetrahedral construction. This construction with its many small dihedral surfaces, also bids fair to solve the problem of stability.

The aeroplane of the future may furl and reef its surfaces much the same as a ship's sails are adjusted to the conditions of the weather. Much higher speed will be made in the aerial flyers of the future than is now accomplished on land, because it will be necessary for these flying crafts to maintain a high speed in order to fight the wind. A light motor and a propeller of great efficiency will do much toward the practical development of the present aerodrome. This improvement of the surfaces is already being rapidly accomplished.

One of the difficulties now experienced, and which was illustrated at Fort Meyer, is the loss of equilibrium. It is possible that the gyroscope will be brought into play to overcome this, but it is hardly probable that automatic equilibrium will ever be entirely attained.

Balloons and dirigibles have been of vast service in learning the peculiarities of the air, but within five years the heavier-than-air machine will have nearly replaced the lighter-than-air craft. The future aerial craft will be simply a devel-