

## AN AMBASSADOR-at-LARGE

*The British Aircraft World Pays Tribute to Lester Gardner*

THAT a realisation of the terrible havoc which can be wrought by air attack may yet prove to be the salvation of mankind, and that in this indirect way air armaments may ultimately prove the great factor for peace, was a theme touched upon by more than one speaker at the dinner to Mr. Lester Gardner given jointly by the Royal Aeronautical Society, the Royal Aero Club, and the Society of British Aircraft Constructors last week at the Park Lane Hotel, London.

Chairman of the party was Sir Robert McLean who, in addition to being chairman of the S.B.A.C., is also chairman of Vickers (Aviation), Ltd. Sir Robert, who was supported by Mr. Lindsay Everard, M.P. (chairman of the Royal Aero Club), and Mr. H. E. Wimperis, Director of Scientific Research at the Air Ministry (president of the R.Ae.S.), as chief hosts, explained that when it was first discovered that Mr. Lester Gardner was coming over from America, the different bodies and societies all wanted to "throw a nice, small, confidential party." As Mr. Gardner's stay in England was, unfortunately, to be a very short one, it had been decided to hold instead this dinner at which members of the three bodies could meet to do honour to the man who had done so much for Englishmen who visited the United States. Sir Robert recalled that whenever any representative of British aviation was going to the U.S.A., they just let Mr. Gardner know, and he promptly arranged that the British visitor was shown all that was to be seen.

Ten years ago Mr. Gardner had visited this country, and at that time he had flown on all the air routes then existing in the world. This time he had come across "in a gas bag," and afterwards had toured several European countries and Russia by heavier-than-air craft. He hoped Mr. Gardner would tell them something about his experiences.

After paying a tribute to American scientists, engineers and designers, Sir Robert asked Mr. Gardner to take back to America the thanks and the recognition of the British aviation community.

### Hands Across the Table

Mr. Lindsay Everard expressed the thanks of members of the Royal Aero Club for all the assistance which Mr. Gardner had given to British visitors to America, and expressed the hope that some day, as a result of the work of the trinity represented there that evening, a British aircraft would carry visitors to America.

Mr. Wimperis said that the work of Lester Gardner in connection with the American Institute of the Aeronautical Sciences made him very dear to British research people. He and Mr. Gardner had just returned from a visit to Germany to the meeting of the Lillienthal Gesellschaft. Among the many interesting things they saw there was Dr. Prandtl's room at Göttingen. It was a large circular room without windows, and it rotated. That room was the only room in the world across which Lester Gardner could not walk in a straight line at any time of the day or night! In conclusion, Mr. Wimperis caused much amusement by quoting a learned lecturer at the annual meeting of the British Association, who had said that it had been found that the size of brain had been found to be largest in those reptiles which had taken to flying.

Mr. Lester Gardner said that in America they regarded the Royal Aeronautical Society as the most distinguished in the world. Until a few years ago, they had nothing comparable in America and so they wrote to the R.Ae.S. and asked how to do it. The R.Ae.S. sent all possible information, and the Institute of the Aeronautical Sciences was a very modest attempt to found a society which would do for America what the R.Ae.S. had done for Great Britain.

He would not tell them anything of American aviation that evening, but would, instead, give some impressions of his trip to Europe. Of his trip across in the *Hindenburg* Mr. Gardner said it was uneventful aeronautically speaking, but he related an amusing account of a *sängerbund* (which the dictionary would have us believe means "choral society") that kept themselves and the rest of the passengers awake until 4 a.m.

In Russia he saw a good deal that was of interest. At the

great motor institute he saw running a new aero engine of 1,250 horse power. Sixteen of the huge Maxim Gorky mono-planes were being built to replace the one lost in a collision, and each was to be powered by four of these new engines. He was greatly impressed by the parachute experience given to thousands of volunteers in Russia.

Mr. Gardner had also visited Germany, Italy and France, and said he was certain that Germany would be heard of soon in connection with some very interesting new aircraft types. In Italy he visited Guidonia (the huge new aeronautical centre established to commemorate the late General Guidoni, who was for a time Italian Air Attaché in London). He was impressed by the luxury of the equipment. The scientists literally worked in marble halls. The work being done in the supersonic wind tunnel at speeds above the speed of sound was very up to date. In France the work being done in the full-scale wind tunnel at Chalais-Meudon was giving good results.

### Expansion

Turning to England, Mr. Gardner referred to the great expansion going on, not only in this country but in all countries, and said that if it went on and was used for war, it would annihilate civilisation. The only hope, he thought, was to build so powerful an air arm that fear of what it could do would ensure peace. To the S.B.A.C. he would say: "May your 'shadow' never grow less."

Three other American guests made short speeches: Mr. T. P. Wright, of the Wright Corporation, Mr. Paul Johnston, Editor of *Aviation*, and Commander Jim Taylor, of the U.S. Navy.

Mr. Wright expressed the view that scientifically Great Britain led the world, but perhaps America could be said to have taken the lead in translating science into engineering. They all knew the present formula: Low-wing monoplane, retractable undercarriage, flaps and so forth. What would be the next step? A good many years ago Professor B. Melville Jones, of Cambridge, had outlined the ideal streamlined aeroplane. As compared with that time, the power wasted was now only something like 15 per cent. That might be still further lowered by reducing skin friction. For example, they would have to get rid of rivets and lap joints. Much work was being done at present on high-altitude flying. His own opinion was that soon we should be flying at 35,000 ft. with passengers and crew in supercharged cabins. Speed was the one thing flying had to sell. High speed meant high wing loading, and he thought assisted take-offs would soon permit a doubling of the wing loading, with consequent gain in cruising speed.

### Co-operation

Mr. Paul Johnston said he thought the most significant thing in modern American air transport was co-operation among the different operating companies. Experience in operation, maintenance and similar problems was now pooled, and this was leading to standardisation of specifications. One result of all this was the new Douglas D.C.4 which would be flying next year. He concluded by extending to all present greetings from Mr. Edward P. Warner.

Commander Taylor, of the U.S. Navy, who had been asked to say something about flight testing in America, said that this was rather different, owing to the difference in the aircraft. In America it was necessary to be able to get machines from one coast to the other quickly, and this meant a large petrol capacity. Referring humorously to mass production, Commander Taylor said he understood that in England mass production meant building more machines with more men. In America, quantity production meant producing more machines with fewer men. Hence different production methods were employed.

The introduction of flaps on modern aircraft had introduced a new technique of piloting. The flaps already had the effect of increasing the effective angle of incidence, and if the pilot attempted the usual tail-down landing, the smallest error in height might have serious consequences. He thought there was still much to be learnt about handling modern aircraft.

Concerning the recent altitude flight by Sqn.-Ldr. Swain, Commander Taylor drew attention to an article by Professor

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