ADVANTAGES AND FUTURE OF THE AUTOGYRO

(Lecture by Mr. J. de La Cierva at the Italian Aerotechnical Association).

Engineer de la Cierva opened his lecture by a short history of the Autogyro, to the conception of which he came in his efforts to create an aerial machine which would not be subject to the consequences of stalling speed. After describing the Autogyro in its present form and illustrating the possibility of this machine to descend like a parachute by exploiting the inertia of the windmill, the author pointed out the perfect stability of the machine due to the fixity of the metacentre, to the reduction to a minimum of the stresses on the blades obtained by means of spherical joints, to the facility of pilotage and to the smoothness of navigation.

In comparing his machine with the airplane, the author stated that, weight and power being equal, the autogyro, in its present form, has flying characteristics only slightly inferior to those of the airplane. The difficulty for taking off will be easily eliminated as soon as a system is found for rotating the windmill at the necessary speed.

According to the author, there is no limit to the dimensions of the Autogyro, and it may be stated that, with suitable improvements, this machine may compete with the airplane from all points of view, with the distinct advantage, however, of much greater safety.

L. W.
THE NEW METEOROGRAPH WITHOUT CLOCKWORK OF THE
ITALIAN WEATHER FORECASTING BUREAU

BY DI MAIO

The article describes a new instrument for sounding the atmosphere. There is no clockwork in this instrument for rotating the cylinder on which the diagrams are traced, like in the ordinary types. Instead, a tube of an elliptical section, which may deform itself more or less according to the pressure, is employed. The diagrams obtained with this instrument permit the reading of temperature and humidity directly in function of the pressure.

L. W.

VALVE FOR CAPTIVE AND FREE BALLOONS

BY DI MAIO

A special piston valve is described which, applied to spherical balloons for meteorological ascents, permits the reaching of maximum altitudes, this not being possible with the ordinary types of balloons at present in use.

L. W.

AERONAUTICAL INDUSTRIES IN THE NATION’S ECONOMY

BY C. DE RYSKY

The author, after remarking that conditions of emigration after the war are completely different from those obtaining before the war, states that the problem of life, on account of the ever increasing birthrate, can only be solved by the creation of industries for which labour is very much in excess as compared to raw materials. Among these industries, the Aeronautical industry may be considered as the leading one. In Italy, the most brilliant successes have already been secured by this young industry – the Caproni machines during the war and in peace time, the Santa Maria of General De Pinedo, the Macchi racer of De Bernardi, the 3-engined
Cant ecc. The same is true in the case of factories producing aeronautical engines – the Fiat Company, the Isotta Fraschini Company, the Romeo Company of Milan building Jupiter engines under license – and of all industries which are connected or dependent on the Aeronautical Industry and which all give promise of great development.

L. W.