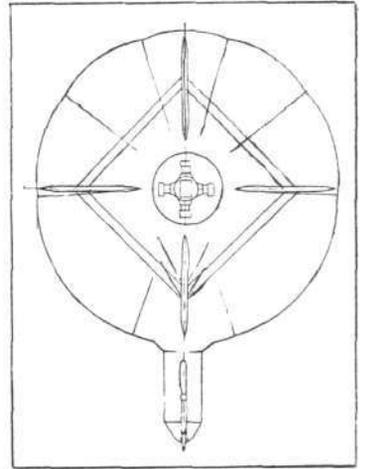
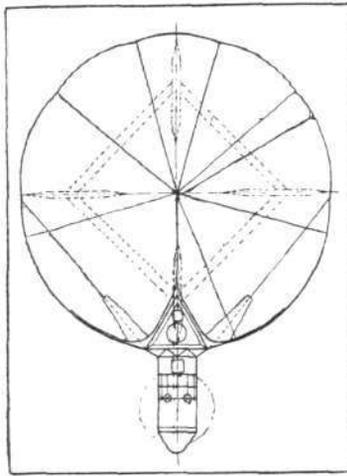


## A New Forlanini Airship

**E**NG. ENRICO FORLANINI, Italy's pioneer airship designer, has recently produced a small airship for the purpose of testing out a novel and interesting manoeuvring system. This airship, the *Omnia Dir*, which is shown in the accompanying illustrations, apart from the feature referred to above,

and stern of the hull.

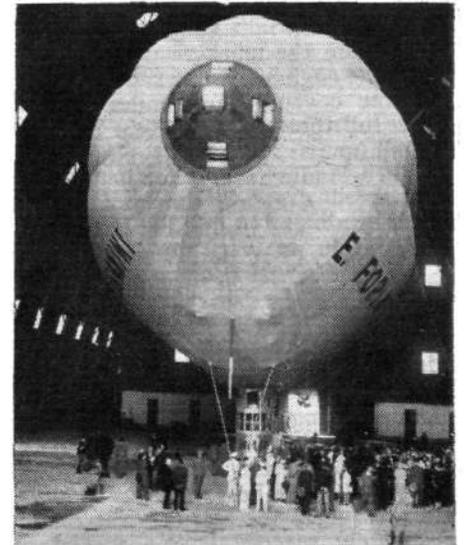
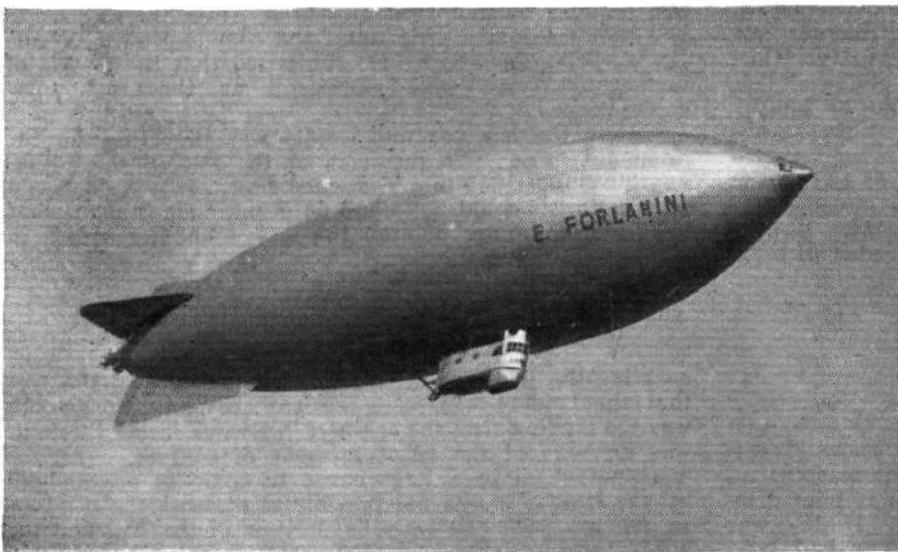
A stream of air from the blowers can be made, at will, to issue from one of the five valves of either group, and as these valves are so arranged that one points directly forward (nose group) or backward (stern group), one upwards, one downwards, one to port and one to starboard, it will be seen that the reaction of the stream of air can be made to move the airship backwards or forwards, downwards or upwards, and to starboard or port. It is claimed that by the operation of these valves, independently or in combination, extreme manoeuvrability of the airship is obtained—it can revolve horizontally about its c.g., rise or fall vertically or climb and descend at a steep angle, and even move sideways, without discharging ballast.



is of the semi-rigid type similar to the well-known Forlanini ships produced in Italy for years past, in which the envelope is attached to a metal triangular keel, carrying the control car and power plant, extending from stem to stern.

The *Omnia Dir* is 56 m. (183 ft. 9 in.) long, 13 m. (42 ft. 6 in.) diameter, and 4,000 m<sup>3</sup>. (49,448 cub. ft.) capacity. It is fitted—for normal flying and manoeuvring—with an old type 150-h.p. Isotta-Fraschini engine driving a two-blade propeller. Where the *Omnia Dir* differs from other airships, however, is in the additional method of manoeuvring both in the horizontal and vertical planes—by means of a form of "jet propulsion." Two centrifugal blowers, "C," driven from the engine, through clutches and shafts, "H," "I," are connected by ducts "D" and "D'" (extending along the keel) to two groups of five "valves" located respectively in the extreme nose

Another feature of the *Omnia Dir* is the provision of a mooring arrangement, consisting of an inverted pylon, "E," attached to the keel under the bow and braced fore and aft by cables. The apex of the pylon is about 1 m. from the ground when the airship is at rest on the latter, and is attached to a short mooring mast in such a way that the airship may turn to the wind freely, the car resting on the ground by way of a sprung wheel, "M," which can be retracted during flight. C. R.



Two views of the Forlanini airship "Omnia Dir," built to test out a system of manoeuvring control by means of "air jets" issuing from valves suitably located in the nose and stern.